CALCULATION SHEET

Facility Estech General Chemicals Corp	I.D. 163 050 AAB
Anal. Eng. JOA Date 05 28 80	PN 72 10 0690
Rev. Eng. _____ Date __ __ __	Date Rec. 05 13 80

Eap not required

Facility manufacture granulated chemical fertilizers, package and ship the fertilizers. It is coded 2873 SIC.

This application request renewal of the operating permit, Sources are:

001) Granulator — Scrubber & Cyclone 90% efficiency.
002) Dryer/Cooler — Cyclone & Rotoclone 97.6% ✓
003) Fuel oil tank
004) Phosphoric Acid tank
005) Sulfuric acid tank.

PWR — (Source 001 & 002) 100,000 LB/HR Max & Avg.
50 TONS/HR ✓

Applicant submit a stack test report with initial application, permit was granted on this, and indication show the operation has not changed or modified.

The ID file show that the FOS made a visit to the facility (Otis Banes). ~~had~~ The report indicated TAS has been updated. Housekeeping was good, and generally the facility is in compliance (4/25/80).

∴ I recommend grant to renewal application.
GRANT 0501

Sheet 1 of 1

APC-268

STATE OF ILLINOIS
ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF AIR POLLUTION CONTROL
2200 CHURCHILL ROAD
SPRINGFIELD, ILLINOIS 62706

RECEIVED
MAY 13 1980
IEPA-DAPC-SPFLD

APPLICATION FOR RENEWAL OF AN OPERATING PERMIT

OPERATION OF: Chemical Fertilizer (A)
(SAME AS 9c ON PAGE 2)

FOR AGENCY USE ONLY
I. D. NO. 163050AAB
PERMIT NO. 72100690
DATE 05-13-80

1a. NAME OF OWNER:		2a. NAME OF OPERATOR:	
Estech General Chemicals Corporation		Estech General Chemicals Corporation	
1b. STREET ADDRESS OF OWNER:		2b. STREET ADDRESS OF OPERATOR:	
30 N. LaSalle St.		2501 N. Kingshighway	
1c. CITY OF OWNER:		2c. CITY OF OPERATOR:	
Chicago		Fairmont City	
1d. STATE OF OWNER:	1e. ZIP CODE:	2d. STATE OF OPERATOR:	2e. ZIP CODE:
Illinois	60602	Illinois	62201

3a. NAME OF CORPORATE DIVISION OR PLANT:		3b. STREET ADDRESS OF EMISSION SOURCE:		
Estech General Chemicals Corp.		2501 N. Kingshighway		
3c. CITY OF EMISSION SOURCE:	3d. LOCATED WITHIN CITY LIMITS: [X] YES [ ] NO	3e. TOWNSHIP:	3f. COUNTY:	3g. ZIP CODE:
Fairmont City			St. Clair	62201

4. ALL CORRESPONDENCE TO: (NAME OF INDIVIDUAL)	5. TELEPHONE NUMBER FOR AGENCY TO CALL:
R. O. Britt	(618) 271-5650
6. ADDRESS FOR CORRESPONDENCE: [X] OWNER [ ] OPERATOR [ ] EMISSION SOURCE	7. YOUR DESIGNATION FOR THIS APPLICATION: (B) CHEM FERT

8. THE UNDERSIGNED HEREBY MAKES APPLICATION FOR A PERMIT AND CERTIFIES THAT THE STATEMENTS CONTAINED HEREIN ARE TRUE AND CORRECT, AND FURTHER CERTIFIES THAT ALL PREVIOUSLY SUBMITTED INFORMATION REFERENCED IN THIS APPLICATION REMAINS TRUE, CORRECT AND CURRENT. BY AFFIXING HIS SIGNATURE HERETO HE FURTHER CERTIFIES THAT HE IS AUTHORIZED TO EXECUTE THIS APPLICATION.

AUTHORIZED SIGNATURE(S): (C)

BY _____ _____
SIGNATURE DATE

_____
TYPED OR PRINTED NAME OF SIGNER

_____
TITLE OF SIGNER

BY W. R. Payne 5-12-80
SIGNATURE DATE

W. R. Payne
TYPED OR PRINTED NAME OF SIGNER

Vice President
TITLE OF SIGNER

(A) THIS FORM IS TO PROVIDE THE AGENCY WITH GENERAL INFORMATION ABOUT THE EQUIPMENT TO BE OPERATED.

(B) PROVIDE A DESIGNATION IN ITEM 7 ABOVE WHICH YOU WOULD LIKE THE AGENCY TO USE FOR IDENTIFICATION OF YOUR EQUIPMENT. YOUR DESIGNATION WILL BE REFERENCED IN CORRESPONDENCE FROM THIS AGENCY RELATIVE TO THIS APPLICATION. YOUR DESIGNATION MUST NOT EXCEED TEN (10) CHARACTERS.

(C) THIS APPLICATION MUST BE SIGNED IN ACCORDANCE WITH PCB REGS., CHAPTER 2, PART 1, RULE 103(a)(4) OR 103(b)(5) WHICH STATES: "ALL APPLICATIONS AND SUPPLEMENTS THERETO SHALL BE SIGNED BY THE OWNER AND OPERATOR OF THE EMISSION SOURCE OR AIR POLLUTION CONTROL EQUIPMENT, OR THEIR AUTHORIZED AGENT, AND SHALL BE ACCOMPANIED BY EVIDENCE OF AUTHORITY TO SIGN THE APPLICATION."

IF THE OWNER OR OPERATOR IS A CORPORATION, SUCH CORPORATION MUST HAVE ON FILE WITH THE AGENCY A CERTIFIED COPY OF A RESOLUTION OF THE CORPORATION'S BOARD OF DIRECTORS AUTHORIZING THE PERSONS SIGNING THIS APPLICATION TO CAUSE OR ALLOW THE CONSTRUCTION OR OPERATION OF THE EQUIPMENT TO BE COVERED BY THE PERMIT.

FOR AGENCY USE ONLY

DATA AND INFORMATION INCORPORATED BY REFERENCE FROM CURRENT OPERATING PERMIT

9a. APPLICATION NO.: 0 2 1 0 0 6 9 0

9b. I.D. NO.: 1 6 3 0 5 0 A A B

9c. OPERATION OF: Chemical Fertilizer

9d. LOCATION: 2501 N. Kingshighway, Fairmont City, Illinois

9e. PERMIT EXPIRATION DATE: 0 5 1 4 8 0

9f. HAS THE OPERATION AS DESCRIBED IN THE REFERENCED OPERATING PERMIT BEEN MODIFIED* AS DEFINED IN RULE 101 OF THE PCB REGS., CHAPTER 2, PART 1? ☐ YES ☒ NO

9g. IF "YES" SUBMIT THE APPLICABLE FORMS OR DESCRIBE IN DETAIL THE MODIFICATION OF THE OPERATION.

9h. DATE THE OPERATION WAS MODIFIED: ___ ___ ___ ___ ___ ___

10a. IF THE OPERATION IS SUBJECT TO A RULE WHOSE EFFECTIVE DATE IS ON OR BEFORE THE DATE OF THIS APPLICATION, IS SUCH OPERATION IN FULL COMPLIANCE WITH ALL SUCH RULES? ☒ YES ☐ NO

10b. IF "NO", EXPLAIN:

11. IF YOUR OPERATING PERMIT APPLICATION CONTAINS COMPLIANCE PROGRAM(S), HAS THIS COMPLIANCE PROGRAM BEEN COMPLETED AND HAVE ALL THE PROJECT COMPLETION REPORTS (APC-271) BEEN SUBMITTED? ☒ YES ☐ NO

12a. ARE YOU IN COMPLIANCE WITH ALL CONDITIONS OF ALL REFERENCED PERMITS? ☒ YES ☐ NO

12b. IF "NO", EXPLAIN:

*MODIFICATION: ANY PHYSICAL CHANGE IN, OR CHANGE IN THE METHOD OF OPERATION, OF AN EMISSION SOURCE OR OF AIR POLLUTION CONTROL EQUIPMENT WHICH INCREASES THE AMOUNT OF ANY SPECIFIED AIR CONTAMINANT EMITTED BY SUCH SOURCE OR EQUIPMENT OR WHICH RESULTS IN THE EMISSION OF ANY SPECIFIED AIR CONTAMINANT NOT PREVIOUSLY EMITTED. IT SHALL BE PRESUMED THAT AN INCREASE IN THE USE OF RAW MATERIALS, THE TIME OF OPERATION, OR THE RATE OF PRODUCTION WILL CHANGE THE AMOUNT OF ANY SPECIFIED AIR CONTAMINANT EMITTED. NOTWITHSTANDING ANY OTHER PROVISIONS OF THIS DEFINITION, FOR PURPOSES OF PERMITS ISSUED PURSUANT TO RULE 103, THE AGENCY MAY SPECIFY CONDITIONS UNDER WHICH AN EMISSION SOURCE OR AIR POLLUTION CONTROL EQUIPMENT MAY BE OPERATED WITHOUT CAUSING A MODIFICATION AS HEREIN DEFINED, AND NORMAL CYCLICAL VARIATIONS, BEFORE THE DATE OPERATING PERMITS ARE REQUIRED, SHALL NOT BE CONSIDERED MODIFICATIONS. PCB REGS., CHAPTER 2, PART 1, RULE 101.

NOTE: TO INCORPORATE OTHER CONSTRUCTION PERMITS BY REFERENCE, ATTACH A LISTING OF SUCH PERMITS USING THE FORMAT SET FORTH IN ITEM 9 OR APC-210, "DATA AND INFORMATION -- INCORPORATION BY REFERENCE."

STATE OF ILLINOIS
ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF AIR POLLUTION CONTROL
2200 CHURCHILL ROAD
SPRINGFIELD, ILLINOIS 62706

RICHARD B. OGILVIE, GOVERN
WILLIAM L. BLASER, DIRECT

• OPERATING PERMIT APPLICATION

CHEMICAL FERTILIZER

I.D. NO.
PERMIT NO. 0
DATE

1a. NAME OF OWNER: SWIFT CHEMICAL COMPANY	1b. NAME OF OPERATOR: SWIFT CHEMICAL COMPANY
2a. TELEPHONE NUMBER OF OWNER: 312/431-2533	2b. TELEPHONE NUMBER OF OPERATOR: (618) 271-5650 (618) 874-7811
3a. STREET ADDRESS OF OWNER: 111 W. Jackson Blvd.	3b. STREET ADDRESS OF OPERATOR: 2501 North Kingshighway
4a. CITY OF OWNER: Chicago	4b. CITY OF OPERATOR: Fairmont City
5a. STATE OF OWNER: Illinois / 6a. ZIP CODE: 60604	5b. STATE OF OPERATOR: Illinois / 6b. ZIP CODE: 62201

7. NAME OF CORPORATE DIVISION OR PLANT (IF DIFFERENT FROM OWNER):

8. TELEPHONE NO. OF DIV. OR PLANT:	9. LOCATED WITHIN CITY LIMITS: ☒ YES ☐ NO	10. STREET ADDRESS OF EMISSION SOURCE: 2501 North Kingshighway	
11. CITY: Fairmont City	11a. TOWNSHIP:	12. COUNTY: St. Clair	13. ZIP CODE: 62201

0 3 6 6 0 4 0 1 8

THE UNDERSIGNED HEREBY MAKES APPLICATION FOR A PERMIT TO OPERATE THE EQUIPMENT DESCRIBED HEREIN AND CERTIFIES THAT THE STATEMENTS CONTAINED HEF ARE TRUE AND CORRECT, AND FURTHER CERTIFIES THAT ALL PREVIOUSLY SUBMITTED INFORMATION REFERENCED IN THIS APPLICATION REMAINS TRUE, CORRECT AND CURRENT.

OWNER (IF INDIVIDUAL)

SIGNATURE DATE

C H E M F E R T
YOUR IDENTIFICATION NUMBER (OPTIONAL)

OWNER (IF CORPORATION OR PARTNERSHIP)

SWIFT CHEMICAL COMPANY
EXACT CORPORATE OR PARTNERSHIP NAME DATE

BY E R Vrablik Group Vice-President
SIGNATURE E. R. Vrablik TITLE

OPERATOR MUST SIGN IF DIFFERENT FROM OWNER

OPERATOR (IF INDIVIDUAL)

SIGNATURE DATE

RECEIVED
JAN 1973
ENVIRONMENTAL PROTECTION AGENCY
STATE OF ILLINOIS

OPERATOR (IF CORPORATION OR PARTNERSHIP)

EXACT CORPORATE OR PARTNERSHIP NAME DATE

BY
SIGNATURE TITLE

IF AN OWNER OR OPERATOR IS A CORPORATION, IT MUST HAVE ON FILE WITH THE AGENCY A CERTIFIED COPY OF A RESOLUTION OF ITS BOARD OF DIRECTORS AUTHORIZING THE INDIVIDUALS SIGNING THE APPLICATION TO EXECUTE THIS OPERATING PERMIT APPLICATION AND TO CAUSE OR ALLOW THE CONSTRUCTION, MODIFICATION AND OPERATION OF THE EQUIPMENT TO BE COVERED BY THE PERMIT.

THIS PERMIT APPLICATION CONSISTS OF APPLICATION FORMS AND OTHER EXHIBITS LISTED BY TITLE AND NUMBER OF PAGES BELOW.

See following pages 1a, 1b, and 1c

I.D. NO. [ ][ ][ ][ ][ ][ ][ ][ ] FOR OFFICIAL USE ONLY PERMIT APPLICATION NO. C [ ][ ][ ][ ][ ][ ]

BAGHOUSES AND CYCLONES

BAGHOUSE	PRIMARY CONTROL EQUIPMENT	SECONDARY CONTROL EQUIPMENT	TERTIARY CONTROL EQUIPMENT
56. METHOD OF PRIOR COOLING:	☐ LIQUID SPRAY ☐ EXCESS AIR VOL _____ CFM ☐ EXTENDED DUCTWORK 1. LENGTH _____ FT 2. DIAMETER _____ IN 3. TYPE OF DUCT MATERIAL _____ 4. THICKNESS OF DUCT MATERIAL _____ IN 5. PAINT COLOR _____ 6. GAS VELOCITY _____ FPS ☐ OTHER (SPECIFY) a. _____	☐ LIQUID SPRAY ☐ EXCESS AIR VOL _____ CFM ☐ EXTENDED DUCTWORK 1. LENGTH _____ FT 2. DIAMETER _____ IN 3. TYPE OF DUCT MATERIAL _____ 4. THICKNESS OF DUCT MATERIAL _____ IN 5. PAINT COLOR _____ 6. GAS VELOCITY _____ FPS ☐ OTHER (SPECIFY) b. _____	☐ LIQUID SPRAY ☐ EXCESS AIR VOL _____ ☐ EXTENDED DUCTWORK 1. LENGTH _____ 2. DIAMETER _____ 3. TYPE OF DUCT MATERIAL _____ 4. THICKNESS OF DUCT MATERIAL _____ 5. PAINT COLOR _____ 6. GAS VELOCITY _____ ☐ OTHER (SPECIFY) c. _____
57. CLEANING METHOD:	☐ SHAKER ☐ REVERSE AIR ☐ OTHER (SPECIFY) a. _____	☐ SHAKER ☐ REVERSE AIR ☐ OTHER (SPECIFY) b. _____	☐ SHAKER ☐ REVERSE ☐ OTHER (SPECIFY) c. _____
58. TYPE OF CLOTH MATERIAL:	a.	b.	c.
59.	a. Dryer	b. Cooler	c. Dryer/Cooler
CYCLONE	PRIMARY CONTROL EQUIPMENT	Primary CONTROL EQUIPMENT	Secondary CONTROL EQUIPMENT
60. TYPE OF CLONE:	a. ☒ SIMPLE ☐ MULTICLONE	b. ☒ SIMPLE ☐ MULTICLONE	c. ☐ SIMPLE ☒ MULTICL
61. FOR MULTIPLE UNITS GIVE NUMBER OF CLONES:	a.	b.	c. 7
62. CONE HEIGHT:	a. 96 IN	b. 84 IN	c. 46-1/4
63. INLET WIDTH:	a. 18 IN	b. 12 IN	c. 1-5/8
64. BODY HEIGHT:	a. 60 IN	b. 36 IN	c. N.A.
65. BODY DIAMETER:	a. 93 IN	b. 81 IN	c. 12
66. OUTLET DIAMETER:	a. 30 IN	b. 32 IN	c. 12
67. INLET VELOCITY:	a. 79 FPS	b. 76 FPS	c. 82 F
68. EXIT VELOCITY FROM CLONE:	a. 72 FPS	b. 41 FPS	c. 98 F
69. CUT SIZE:	a. 30 MICRONS	b. 30 MICRONS	c. 10 MICRO

*Type R Roto-Clone serves as secondary control for two individual simple cyclones; one each for dryer and for cooler -- see Drawing #102.

0366C0119411

I.D. NO. | | | | | | | | | FOR OFFICIAL USE ONLY | C | | | | | |

EXHAUST

89. EXHAUST GAS FROM CONTROL EQUIPMENT IS VENTED TO: ☐ INSIDE BUILDING ☒ ATMOSPHERE ☐ OTHER (SPECIFY): _____

90. YOUR DESIGNATION OF STACK OR VENT: Source #12

91. HOW EMISSIONS ARE EXHAUSTED: ☒ STACK ☐ VENT

92. GAS EXIT VELOCITY: 60 to 70 FPS

93. GAS EXIT TEMPERATURE: 90-115 °F

94. DRAFT CONTROLS: ☒ MANUAL ☐ AUTOMATIC ☐ BAROMETRIC ☐ OTHER (SPECIFY) _____

95. HEIGHT OF STACK OR VENT ABOVE GRADE: 55

97. HEIGHT OF STACK OR VENT ABOVE ROOF: 25 FT

98. HEIGHT OF TALLEST BUILDING WITHIN TE FEET: 53

99. STACK OR VENT SERVES: ☒ ONLY THIS EQUIPMENT ☐ OTHER EQUIPMENT

100. AREA OF STACK OR VENT AT EXIT: 7.87

101. IF OTHER EMISSION SOURCES OR AIR POLLUTION CONTROL EQUIPMENT ARE EXHAUSTED THROUGH THE STACK OR VENT SERVING THE EQUIPMENT COVERED BY THIS APPLICATION, THE APPLICANT SHALL DEFINE THE NATURE AND QUANTITY OF THE EMISSIONS FROM SUCH OTHER EQUIPMENT AND ATTACH SUCH INFORM TO THIS APPLICATION AS EXHIBIT G.

TOTAL NUMBER OF PAGES IN EXHIBIT G: _____

102. THE APPLICANT SHALL SUBMIT AN ESTIMATE OF THE MAXIMUM ONE-HOUR AMOUNTS OF PARTICULATE MATTER, SULFUR DIOXIDE, CARBON MONOXIDE, OXIDES O NITROGEN, AND HYDROCARBONS (AS METHANE) EMITTED FROM ALL SOURCES LOCATED ON THE PLANT OR PREMISES, INCLUDING THE EMISSIONS ESTIMATED FR THE EQUIPMENT COVERED BY THIS APPLICATION, AND THE AREA (IN ACRES) OF THE PLANT OR PREMISES OF THE APPLICANT.

MATERIAL	ONE-HOUR MAX. AMOUNTS	MATERIAL	ONE-HOUR MAX. AMOUNTS	MATERIAL	ONE-HOUR MAX. AMOUNTS
PARTICULATE MATTER	35.2 LB	SULFUR DIOXIDE	1.44 LB	NITROGEN OXIDES AS NO_2	2.45 LB
HYDROCARBONS AS CH_4	- LB	CARBON MONOXIDE	LB	NH_3 134	lbs./hr. max

EXHAUST GAS ANALYSIS

CONTAMINANT	CONCENTRATION	EMISSION RATE	METHOD OF MEASURE AND ANALYSIS	METHOD OF MONITORING
104. CARBON DIOXIDE	a. PPM	b. ☐ LB/10^6BTU ☐ LB/HR	c.	d.
105. CARBON MONOXIDE	a. PPM	b. ☐ LB/10^6BTU ☐ LB/HR	c.	d.
106. CHLORINE	a. PPM	b. ☐ LB/10^6BTU ☐ LB/HR	c.	d.
107. HYDROCARBONS AS CH_4	a. PPM	b. ☐ LB/10^6BTU ☐ LB/HR	c.	d.
108. HYDROGEN CHLORIDE	a. PPM	b. ☐ LB/10^6BTU ☐ LB/HR	c.	d.
109. HYDROGEN SULFIDE	a. PPM	b. ☐ LB/10^6BTU ☐ LB/HR	c.	d.
110. NITROGEN	a. PPM	b. ☐ LB/10^6BTU ☐ LB/HR	c.	d.
111. NITROGEN OXIDES AS NO_2	a. PPM	b. ☐ LB/10^6BTU ☐ LB/HR	c.	d.
112. SULFUR DIOXIDE	a. PPM	b. ☐ LB/10^6BTU ☐ LB/HR	c.	d.
113. OTHER (SPECIFY)	a. PPM	b. ☐ LB/10^6BTU ☐ LB/HR	c.	d.
114. PARTICULATE MATTER	a. 0.065 GRAIN/SCF	b. 16.74 ☐ LB/10^6BTU ☐ LB/HR	c. Stack Tests See Exhibit 3	d.

115. PARTICULATE MATTER COMPOSITION EXPRESSED AS PERCENT BY WEIGHT OF EACH COMPONENT (COMMON NAME SHALL BE GIVEN IF CHEMICAL NAME IS UNKNOWN)

Ammonium Sulfate)
Ammonium Phosphate) In varying proportions depending on grade of chemical
Potassium Chloride) fertilizer being formulated - See exhibit #4
Calcium Sulfate)

0360019942

STATE OF ILLINOIS
ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF AIR POLLUTION CONTROL
2200 CHURCHILL ROAD
SPRINGFIELD, ILLINOIS 62706

RICHARD B. OGILVIE, GOVERN
WILLIAM L. BLASER, DIRECT

DATA AND INFORMATION
FOR EXISTING COMBUSTION EQUIPMENT
AND
INDIRECT HEATING

003
503

Steam Boiler E-1

FOR OFFICIAL USE ONLY
I.D. NO.
PERMIT NO. F
DATE

1a. NAME OF OWNER: Swift Chemical Company	1b. NAME OF OPERATOR: Swift Chemical Company
2a. STREET ADDRESS OF OWNER: 111 West Jackson Blvd.	2b. STREET ADDRESS OF OPERATOR: 2501 North Kingshighway
3a. CITY OF OWNER: Chicago	3b. CITY OF OPERATOR: Fairmont City
4a. STATE OF OWNER: Illinois / 4b. ZIP CODE: 60604	5a. STATE OF OPERATOR: Illinois / 5b. ZIP CODE: 62201

6. NAME OF CORPORATE DIVISION OR PLANT (IF DIFFERENT FROM OWNER):

7. LOCATED WITHIN CITY LIMITS: ☒ YES ☐ NO	8. STREET ADDRESS OF EMISSION SOURCE: 2501 North Kingshighway
9a. CITY: Fairmont City / 9b. LOCATED WITHIN CITY LIMITS: ☒ YES ☐ NO	10. COUNTY: St. Clair / 11. ZIP CODE: 62201

12. WAS THE EQUIPMENT DESCRIBED IN THIS INFORMATIONAL FORM INSTALLED AT THE PLANT OR PREMISES OF THE APPLICANT ON OR BEFORE APRIL 14, 1972?

☒ YES ☐ NO

IF "NO," STATE WHETHER THE APPLICANT HAD, ON OR BEFORE APRIL 14, 1972, ENTERED INTO A BINDING AGREEMENT OR CONTRACTUAL OBLIGATION TO UNDERTAKE AND COMPLETE, WITHIN A REASONABLE TIME, A CONTINUOUS PROGRAM OF CONSTRUCTION OR MODIFICATION OF THE EQUIPMENT DESCRIBED IN THIS INFORMATIONAL FORM:

☐ YES ☐ NO

13. THE APPLICANT SHALL PROVIDE THE RESULTS OF TESTS CONDUCTED IN ACCORDANCE WITH APPLICABLE REGULATIONS OF CHAPTER 2, AIR POLLUTION, WHICH SHOW WHETHER OR NOT THE EMISSIONS OF CONTAMINANTS FROM THIS EMISSION SOURCE, EITHER ALONE OR IN COMBINATION WITH CONTAMINANTS FROM OTHER SOURCES LOCATED AT THE SAME PLANT OR PREMISES OF THE APPLICANT, COMPLY WITH APPLICABLE SUBSTANTIVE REGULATIONS OF CHAPTER 2, AIR POLLUTION.

IN LIEU OF ONE OR MORE OF SUCH TESTS, THE APPLICANT MAY SUBMIT OTHER STANDARD TESTING INFORMATION OR THE DETAILS AND RESULTS OF ENGINEERING STUDIES SUFFICIENT TO ACCURATELY ESTIMATE THE RATES OF EMISSIONS OF CONTAMINANTS FROM THIS EMISSION SOURCE AND FURTHER TO SHOW WHETHER OR NOT THE EMISSIONS OF SUCH CONTAMINANTS, EITHER ALONE OR IN COMBINATION WITH CONTAMINANTS FROM OTHER SOURCES LOCATED AT THE SAME PLANT OR PREMISES OF THE APPLICANT, COMPLY WITH APPLICABLE SUBSTANTIVE REGULATIONS OF CHAPTER 2, AIR POLLUTION.

Reference source for estimated emissions

1. Air Pollution Engineering Manual
   U.S. Dept. of Health, Education and Welfare
   P.524 Table 143; P.539 Table 145

2. Chemical Engineer's Handbook - 4th Ed.
   P. 9-14 Table 9-16

THESE DATA AND INFORMATION CONSIST OF APPLICATION FORMS AND OTHER EXHIBITS LISTED BY TITLE AND NUMBER OF PAGES BELOW.

APC - 86 3 pages

I.D. NO. [| | | | | | | |] FOR OFFICIAL USE ONLY PERMIT APPLICATION NO. F [| | | | | |]

GENERAL INFORMATION

NOTE: APPLICANT MUST SUBMIT TWO COPIES (THREE IF LOCATED IN COOK COUNTY) OF EACH OF THE FOLLOWING:
1. CONSTRUCTION PERMIT APPLICATION FORM (SEPARATE APPLICATION FORMS FOR EACH ITEM OF CONTROL EQUIPMENT NOT COVERED BY AN ATTACHED ADDENDUM).
2. DIMENSIONED DRAWINGS, PLAN, ELEVATION (SECTIONED WHERE NECESSARY AND WHERE APPLICABLE) AND PLOT PLAN AND MAP SHOWING DISTANCES TO NEAREST BOUNDARY OF THE PROPERTY ON WHICH THE CONTROL EQUIPMENT IS LOCATED, AND THE DISTANCES TO NEAREST RESIDENCES, LODGINGS, NURSING HOMES, HOSPITALS, SCHOOLS, AND COMMERCIAL AND MANUFACTURING ESTABLISHMENTS.
3. FLOW DIAGRAM AS SPECIFIED IN THE INSTRUCTION SHEET.

14. BOILER MANUFACTURER: Continental Boiler Co.
15. MODEL NUMBER: 12212
16. SERIAL NUMBER: E9B150B-5
17. OPERATION TIME OF BOILER: 16 HRS/DAY 5 DAYS/WK 46 WKS/YR
18. PERCENT OF ANNUAL THROUGHPUT: DEC-FEB 25 % MAR-MAY 45 % JUNE-AUG 14 % SEPT-NOV 16 %
19. RATED HEAT INPUT: 5,175,000 THOUSAND BTU/HR
20. TOTAL COST OF HEATING EQUIPMENT (NOT INCLUDING INSTALLATION): $Est.$12,000. installed 1965
21. OPERATING PRESSURE OF BOILER: 95 PSIG
22. PERCENT CAPACITY USED FOR SPACE HEATING: None

GAS FIRED UNITS

23. GAS BURNER MANUFACTURER & MODEL NUMBER:
24. BURNER VOLUME: FT^3
25. RETENTION TIME: S
26. MAXIMUM FIRING RATE: SCFH
27. AVERAGE FIRING RATE: SCFH
28. AVERAGE HEAT CONTENT: BTU/F
29. AVERAGE SULFUR CONTENT: % BY WT
30. EST. ANNUAL CONSUMPTION: SCF
31. EXCESS AIR: % BY V

OIL FIRED UNITS

32. OIL BURNER MANUFACTURER & MODEL NUMBER:
33. BURNER VOLUME: F
34. RETENTION TIME: SEC
35. MAXIMUM FIRING RATE: 5,175 THOUSAND BTU/HR
36. AVERAGE FIRING RATE: 1.375 THOUSAND BTU/H
37. TYPE OF OIL: #2
38. EST. ANNUAL CONSUMPTION: 122,000 LB
39. AVERAGE HEAT CONTENT OF OIL: 19,500 BTU/L
40. EXCESS AIR: 20 % BY VOL
41. AVERAGE SULFUR CONTENT: 0.28 % BY WT
42. AVERAGE ASH CONTENT: NIL % BY
43. OIL BURNER TYPE: ☒ ATOMIZING ☐ STEAM OR AIR ATOMIZING ☐ OTHER SPECIFY
44. DIRECTION OF FIRING: ☒ HORIZONTAL ☐ TANGENTIAL
45. OIL BURNER CONTROL: ☐ MANUAL ☒ AUTOMATIC ON-OFF ☐ AUTOMATIC HIGH-LOW ☐ AUTOMATIC FULL MODULATION

COAL FIRED UNITS

46. TYPE OF COAL: ☐ BITUMINOUS ☐ ANTHRACITE ☐ OTHER SPECIFY
47. AVERAGE SULFUR CONTENT: % BY WT
48. AVERAGE ASH CONTENT: % BY WT
49. MAXIMUM FIRING RATE: THOUSAND BTU/HR
50. AVERAGE FIRING RATE: THOUSAND BTU/H
51. VOLATILE CONTENTS: % BY WT
52. EXCESS AIR: % BY
53. MAXIMUM SULFUR CONTENT: % BY WT
54. MOISTURE CONTENT: % BY
55. AVERAGE HEAT VALUE: BTU/LB
56. IDENTIFY SOURCE OF COAL BY MINE AND SEAM:
57. ANNUAL CONSUMPTION: TONS/Y
58. TYPE OF FIRING:
a. ☐ PULVERIZED DRY BOTTOM
b. ☐ PULVERIZED WET BOTTOM
c. ☐ CYCLONE
d. ☐ SPREADER NO REINJECTION
e. ☐ SPREADER ____ % REINJECTION
f. ☐ OTHER SPECIFY
59. DIRECTION OF FIRING: ☐ HORIZONTAL ☐ VERTICAL ☐ TANGENTIAL ☐ CORNER ☐ OTHER SPECIFY

0360700194

I.D. NO. | | | | | | | | | FOR OFFICIAL USE ONLY PERMIT APPLICATION NO. F | | | | | | |

EXHAUST GAS ANALYSIS
(PRIOR TO PASSAGE THROUGH ANY CONTROL EQUIPMENT)

NOTE: IF THE EMISSION SOURCE WHICH IS THE SUBJECT OF THIS CONSTRUCTION PERMIT APPLICATION IS SERVED BY MORE THAN ONE EXHAUST STACK OR VENT, THE APPLICANT SHALL COMPLETE SEPARATE SHEETS FOR EACH SUCH STACK OR VENT.

CONTAMINANT	CONCENTRATION	EMISSION RATE	METHOD OF MEASURE AND ANALYSIS	METHOD OF MONITORING
60. CARBON MONOXIDE	a. PPM	b. LB/HR	c.	d.
61. CARBON DIOXIDE	a. 11% PPM	b. 156 LB/HR	c. Table 9-16 Perry's 4th Ed.	d. None
62. CHLORINE	a. PPM	b. LB/HR	c.	d.
63. HYDROCARBONS AS CH_4	a. PPM	b. LB/HR	c.	d.
64. HYDROGEN CHLORIDE	a. PPM	b. LB/HR	c.	d.
65. HYDROGEN SULFIDE	a. PPM	b. LB/HR	c.	d.
66. NITROGEN	a. PPM	b. LB/HR	c.	d.
67. NITROGEN OXIDES AS NO_2	a. 24 PPM	b. Est. 0.49 LB/HR	c. Air Poll. Eng. - Manual P. 539 - Table 145	d.
68. SULFUR DIOXIDE	a. 11 PPM	b. 0.287 LB/HR	c. Calc. from fuel oil analysis	d. None
69. OTHER (SPECIFY)	a. PPM	b. LB/HR	c.	d.
70. PARTICULATE MATTER	a. 0.045 GRAIN/SCF	b. Est. Avg. 0.075 LB/HR	c. Air Poll. Engr. Manual Table 143 p. 524	d. None

71. PARTICULATE MATTER COMPOSITION EXPRESSED AS PERCENT BY WEIGHT OF EACH COMPONENT (COMMON NAME SHALL BE GIVEN IF CHEMICAL NAME IS UNKNOWN):

NOTE: THIS SECTION TO BE COMPLETED ONLY IF EMISSIONS ARE EXHAUSTED DIRECTLY TO THE ATMOSPHERE WITHOUT ANY CONTROL EQUIPMENT:

72. HOW EMISSIONS ARE EXHAUSTED: ☒ STACK ☐ VENT

73. GAS EXIT VELOCITY: 6.0 FPS

74. GAS EXIT TEMPERATURE: 400 °F

75. DRAFT CONTROLS: ☒ MANUAL ☐ AUTOMATIC ☐ BAROMETRIC ☐ OTHER (SPECIFY)

76. DISTANCE OF THE STACK OR VENT FROM THE NEAREST PLANT BOUNDARY OF THE APPLICANT: 170 FT.

77. HEIGHT OF STACK OR VENT ABOVE GRADE: 45 FT.

78. HEIGHT OF STACK OR VENT ABOVE ROOF: 15 FT.

79. HEIGHT OF TALLEST BUILDING WITHIN 150 FEET: 52 FT.

80. YOUR DESIGNATION OF STACK OR VENT: Source #1

81. AREA OF STACK OR VENT AT EXIT: 0.78 FT^2

82. IF OTHER EMISSION SOURCES OR AIR POLLUTION CONTROL EQUIPMENT ARE EXHAUSTED THROUGH THE STACK OR VENT SERVING THE EQUIPMENT COVERED BY THIS APPLICATION, THE APPLICANT SHALL DEFINE THE EMISSIONS FROM SUCH OTHER EQUIPMENT AND ATTACH SUCH INFORMATION TO THIS APPLICATION AS EXHIBIT G.

TOTAL NUMBER OF PAGES IN EXHIBIT G: _____

83. THE APPLICANT SHALL SUBMIT AN ESTIMATE OF THE MAXIMUM ONE-HOUR AMOUNTS OF PARTICULATE MATTER, SULFUR DIOXIDE, CARBON MONOXIDE, OXIDES OF NITROGEN, AND HYDROCARBONS (AS METHANE) EMITTED FROM ALL SOURCES LOCATED ON THE PLANT OR PREMISES, INCLUDING THE EMISSIONS ESTIMATED FROM THE EQUIPMENT COVERED BY THIS APPLICATION, AND THE AREA (IN ACRES) OF THE PLANT OR PREMISES OF THE APPLICANT.

MATERIAL	ONE-HOUR MAX. AMOUNTS	MATERIAL	ONE-HOUR MAX. AMOUNTS	MATERIAL	ONE-HOUR MAX. AMOUNTS
PARTICULATE MATTER	35.2 LB	SULFUR DIOXIDE	1.44 LB	NITROGEN OXIDES AS NO_2	2.45 LB
HYDROCARBONS AS CH_4	_____ LB	CARBON MONOXIDE	_____ LB	NH_3 -134	

Area=10.34 acres

C-86

STATE OF ILLINOIS
ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF AIR POLLUTION CONTROL
2200 CHURCHILL ROAD
SPRINGFIELD, ILLINOIS 62706
TELEPHONE 217-525-5811

Richard B. Ogilvie, Governor

William L. Blaser, Director

AIR POLLUTION EPISODE ACTION PLAN

NAME OF INSTALLATION:		DATE:
SWIFT CHEMICAL COMPANY		Jan. 17, 1973
LOCATION OF INSTALLATION – STREET:	CITY OR TOWNSHIP:	COUNTY:
2501 N. Kingshighway - (Ill.#111)	Fairmont City	St. Clair
MAILING ADDRESS – STREET OR BOX NO.:	CITY:	STATE AND ZIP:

	PERSON TO BE NOTIFIED:	TITLE	OFFICE PHONE	HOME PHONE
1.	Mr. R. O. Britt	Operations Manager	618/271-1208	618/632-2196
2.	Mr. Bruno Hucher	Production Coordinator	618/271-1208	618/345-6573
3.	Mr. W. R. Payne	Regional Manager	618/271-5650	618/344-2823

MANUFACTURING PROCESSES: Describe operations or products manufactured.

Produce granulated chemical fertilizers
Package and ship chemical fetilizers

PROCESS EMISSION SOURCES: List process emission sources.

1. Steam Boiler for process steam in Ammoniator/granulator - Emission Source #1
2. Ammoniator/granulator for chemical fertilizers - Emission Source #6
3. Dry and cool chemical fertilizers - Emission Source #12

FUEL COMBUSTION EMISSION SOURCES: Describe combustion equipment, rated heat input, type of fuel used. If over 10 million btu/hr total, specify means whereby four-day supply of low-ash and low-sulfur fuel is assured.

a. Steam boiler for process steam - 5.175 million Btu/hr.(max.) -Average 1.375×10^6 Btu
b. Direct heat combustion for chemical fertilizer - 9.8 million Btu/hr. (max.)
The foregoing burn #2 fuel oil with max. 0.4%-S - 10,000 gals. supply tank on or before Dec. 31, 1973 the #2 fuel oil will be supplied with sulfur content below 0.28%.

REFUSE BURNING OR INCINERATION DEVICES: Indicate amount of refuse burned, type of control device if installed, specify what preparations have been made to store or handle a four-day accumulation of refuse.

Refuse hauled away by contract scavenger service

REMARKS:

PERSON PREPARING PLAN

Signature T C Kearns

Name (printed) T. C. Kearns

Title Director, Technical Services

LEGALLY RESPONSIBLE OFFICIAL

Signature E R Vrablik

Name (printed) E. R. Vrablik

Title Vice-President

YELLOW ALERT REQUIREMENTS

Fuel combustion emission sources rated in excess of 10 million btu hr shall use fuel with a sulfur content of less than 1.0% (0.5% for resi fuel oil, 0.3% for distillate fuel oil). Open burning prohibited. Boiler lancing, soot blowing, and incineration with control devices authori only between 12:00 noon and 4:00 p.m. All special operating permits, variances, and programs of delayed compliance for manufacturing fac ties suspended. No action required of process emission sources meeting Illinois emission standards.

Indicate actions which will be taken to meet requirements:

Notify Shift Supervisors to begin yellow alert actions. Operations that can be conveniently closed down will be stopped. Mixed fertilizer operation will be reduced from 22 to 16 TPH. These actions can be put into effect within 2 hours after notification.
Plant does not practice open burning. Fuel oil, LPG, Propane and gasoline only fuels used.
No boiler lancing is ever required.

Estimated Operations Reduction 20%	Estimated Emissions Reduction 20%

RED ALERT REQUIREMENTS

Continue all Yellow Alert actions. Operation of manufacturing process emission sources, including steam generators shall be curtailed to greatest extent possible without causing injury to persons or severe damage to equipment. All incineration is now prohibited.

Indicate actions which will be taken to meet requirements:

Continue all yellow alert actions and completely stop Chemical Fertilizer mixing operation including shutting down boiler for process steam if temperature above 32°F.
Plant has no incinerator and does not practice open burning. Refuse is hauled away by a contract scavenger.

Estimated Total Operations Reduction 80 %	Estimated Total Emissions Reduction 75 %

EMERGENCY REQUIREMENTS

Continue Yellow and Red Alert actions. Non-essential use of electricity and motor vehicles prohibited. Buildings heated to 65° F or less. All manufacturing and most industrial, commercial, governmental, educational, and recreational facilities now curtail or cease operation.

Indicate actions which will be taken to meet requirements:

Stop all operations, including raw materials unloading, product packaging and shipping. Will shut off boiler and heater units if temperature above 32°F. All lights and air-conditioners to be turned off. Suspend all tractor and lift truck operations. Automobile and truck use by personnel to be limited to emergency needs.

Exhibit-6	Particulate Size Distribution to Cyclones From Cooler and Dryer - Wilmington, N.C. Test	1	29
Exhibit-7	Particulate Size Distribution to Cyclones From Cooler and Dryer - Savannah, Ga. Test	1	30
Exhibit-8	Particulate Size Distribution to Cyclones From Cooler and Dryer - Charleston, S.C. Test	1	31
Drawing No.103	Zoning Map	1	32
Drawing No.101	Emission Source Map	1	33
Drawing No.102	Process Flow Diagram	1	34
Drawing No.104	Process Instrumentation Diagram	1	35
Addendum-A	Process Equipment and Instrumentation Code used in Drawings #102 and #104	1	36
Drawing No.105	Plot Plan	1	37
APC-66	Addendum A - Data and Information for Existing Emission Source - #6 and #12 Fan Data	1	38
APC-76	Addendum F - Data and Information for Existing Emission Source (Tank - fuel oil)	1	39
APC-76	Addendum F - Data and Information for Existing Emission Source (Small liquid Anhydrous Ammonia Tank)	1	40
APC-76	Addendum F - Data and Information for Existing Emission Source (Large Liquid Anhydrous Ammonia Tank)	1	41
APC-76	Addendum F - Data and Information for Existing Emission Source (South Phosphoric Acid Tank)	1	42
APC-76	Addendum F - Data and Information for Existing Emission Source (North Phosphoric Acid Tank)	1	43
APC-76	Addendum F - Data and Information for Existing Emission Source (Sulfuric Acid Tank)	1	44

APC-86	Data and Information for Existing Combustion Equipment and Indirect Heating (Dryer Burner E-2)	3	45-47
APC-95	Compliance Plan	2	48-49
APC-98	Project Completion Schedule	1	50
APC-103	Addendum L - Disposition of solid waste from dry collectors		51
Exhibit S	Description of the Process which results in the production of solid recycle (waste) material		52
Exhibit T	Description of Recycle material from dry collectors		53
Exhibit W	Description of Reclaiming Process		54

14. The applicant shall submit a plot plan and map showing distances to the nearest boundary of the property on which the operation is located and distances to the nearest residences, lodgings, nursing homes, hospitals, schools and commercial and manufacturing establishments, and attach this plot plan and map to this application.

15. The applicant shall submit a process flow diagram depicting all emission sources and all air pollution control equipment covered by this Operating Permit application. The diagram shall include labels for each source and equipment, and shall set forth maximum flow rates for (1) all processing equipment, (2) all air pollution control equipment, (3) all emission sources and (4) all stacks and vents.

Number of sheets: 2 Drawing number(s): 102 and 104

16. If the applicant is incorporating by reference previously granted Installation or Construction Permits, he shall complete Form APC-93, entitled "Previously Granted Installation or Construction Permits Incorporated by Reference."

Total number of Forms APC-93 included with this application: 0

17. For each existing emission source (other than fuel combustion sources or incinerators) not covered by a previously granted Installation or Construction Permit, the applicant shall complete Form APC-64, entitled "Data and Information for an Existing Emission Source."

Total number of Forms APC-64 included with this application: 2

18. For each existing fuel combustion source not covered by a previously granted Installation or Construction Permit, the applicant shall complete Form APC-86, entitled "Data and Information for Existing Combustion Equipment and Indirect Heating."

Total number of Forms APC-86 included with this application: 2

19. For each existing incinerator not covered by a previously granted Installation or Construction Permit, the applicant shall complete Form APC-92, entitled "Data and Information for Existing Incinerators."

Total number of Forms APC-92 included with this application: 0

20. For each existing item of air pollution control equipment not covered by a previously granted Installation or Construction Permit, the applicant shall complete Form APC-62, entitled "Data and Information for Existing Air Pollution Control Equipment" (for Electrostatic Precipitators use Form APC-90, entitled "Data and Information for Existing Electrostatic Precipitators").

Total number of Forms APC-62 included with this application: 2

Total number of Forms APC-90 included with this application: 0

21. If the startup of any emission source covered by this application produces contaminants which exceed the applicable emission standards, the applicant shall complete Section "A" of Form APC-94, entitled "Operation During Malfunctions, Breakdowns, or Startups."

Total number of Forms APC-94 included with this application: 0

22. If the applicant is applying for permission to operate any emission source during malfunctions or breakdowns pursuant to Chapter 2, Rule 105, he shall complete Section "B" of Form APC-94, entitled "Operation During Malfunctions, Breakdowns, or Startups."

Total number of Forms APC-94 included with this application: 0

23. If all or any part of the manufacturing process which is the subject of this Operating Permit application must be controlled or otherwise modified to comply with applicable substantive Regulations, the applicant shall complete Form APC-95, entitled "Compliance Plan."

24. Does the operation covered by this application require an Episode Action Plan? ☒ YES ☐ NO

If "Yes", give the date such plan was filed with the Agency (if it has not been filed, the applicant shall complete Form APC-100, entitled "Episode Action Plan").

Date Plan submitted: 9/30/72

25. State whether each of the applicant's emission sources covered by this application was, as of April 14, 1972, operating within the applicable limitations of the "Rules and Regulations Governing the Control of Air Pollution," adopted by the former Air Pollution Control Board and continued effective pursuant to Section 49(c) of the Environmental Protection Act. YES

For each such emission source in compliance as of April 14, 1972, state the basis for your conclusions and attach your statements as Exhibit B.

See attached Exhibit B(2) and B(3)

For each such emission source not in compliance as of April 14, 1972, state the basis for your conclusions and attach your statements as Exhibit C.

Total number of pages in Exhibit B: 3

Total number of pages in Exhibit C: 1

26. Was the applicant's operation the subject of a variance petition filed with the Illinois Pollution Control Board on or before June 13, 1972? ☐ Yes ☒ No

If "Yes", cite PCB number(s): _____ Date of Board Order: _____

State whether the applicant had, on or before April 14, 1972, commenced construction of equipment or modifications sufficient to achieve compliance with the applicable limitations of the "Rules and Regulations Governing the Control of Air Pollution," adopted by the former Air Pollution Control Board and continued effective pursuant to Section 49(c) of the Environmental Protection Act.

☒ Yes ☐ No

If "No", explain in detail and attach your explanation as Exhibit D.

Total number of pages in Exhibit D: _____

0366001923

APC-64 (B)

STATE OF ILLINOIS
ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF AIR POLLUTION CONTROL
2200 CHURCHILL ROAD
SPRINGFIELD, ILLINOIS 62706

RICHARD B. OGILVIE, GOVERNOR
WILLIAM L. BLASER, DIRECTOR

DATA AND INFORMATION FOR EXISTING EMISSION SOURCE

001
S01

#6

Granulator Scrubber

FOR OFFICIAL USE ONLY

I.D. NO.

PERMIT NO. S

DATE

1a. NAME OF OWNER: SWIFT CHEMICAL COMPANY	1b. NAME OF OPERATOR: SWIFT CHEMICAL COMPANY
2a. STREET ADDRESS OF OWNER: 111 West Jackson Blvd.	2b. STREET ADDRESS OF OPERATOR: 2501 North Kingshighway
3a. CITY OF OWNER: Chicago	3b. CITY OF OPERATOR: Fairmont City
4a. STATE OF OWNER: Illinois; 4b. ZIP CODE: 60604	5a. STATE OF OPERATOR: Illinois; 5b. ZIP CODE: 62201

6. NAME OF CORPORATE DIVISION OR PLANT (IF DIFFERENT FROM OWNER):

7. LOCATED WITHIN CITY LIMITS: XX YES ☐ NO	8. STREET ADDRESS OF EMISSION SOURCE: 2501 North Kingshighway
9. CITY: Fairmont City	10. COUNTY: St. Clair; 11. ZIP CODE: 62201

12. WAS THE EQUIPMENT DESCRIBED IN THIS INFORMATION FORM INSTALLED AT THE PLANT OR PREMISES OF THE APPLICANT ON OR BEFORE APRIL 14, 1972?

X YES NO

IF "NO", STATE WHETHER THE APPLICANT HAD, ON OR BEFORE APRIL 14, 1972, ENTERED INTO A BINDING AGREEMENT OR CONTRACTUAL OBLIGATION TO UNDERTAKE AND COMPLETE, WITHIN A REASONABLE TIME, A CONTINUOUS PROGRAM OF CONSTRUCTION OR MODIFICATION OF THE EQUIPMENT DESCRIBED IN THIS INFORMATIONAL FORM:

YES NO

13. THE APPLICANT SHALL PROVIDE THE RESULTS OF TESTS CONDUCTED IN ACCORDANCE WITH APPLICABLE REGULATIONS OF CHAPTER 2, AIR POLLUTION, WHICH SHOW WHETHER OR NOT THE EMISSIONS OF CONTAMINANTS FROM THIS EMISSION SOURCE, EITHER ALONE OR IN COMBINATION WITH CONTAMINANTS FROM OTHER SOURCES LOCATED AT THE SAME PLANT OR PREMISES OF THE APPLICANT, COMPLY WITH APPLICABLE SUBSTANTIVE REGULATIONS OF CHAPTER 2, AIR POLLUTION.

IN LIEU OF ONE OR MORE OF SUCH TESTS, THE APPLICANT MAY SUBMIT OTHER STANDARD TESTING INFORMATION OR THE DETAILS AND RESULTS OF ENGINEERING STUDIES SUFFICIENT TO ACCURATELY ESTIMATE THE RATES OF EMISSIONS OF CONTAMINANTS FROM THIS EMISSION SOURCE AND FURTHER TO SHOW WHETHER OR NOT THE EMISSIONS OF SUCH CONTAMINANTS, EITHER ALONE OR IN COMBINATION WITH CONTAMINANTS FROM OTHER SOURCES LOCATED AT THE SAME PLANT OR PREMISES OF THE APPLICANT, COMPLY WITH APPLICABLE SUBSTANTIVE REGULATIONS OF CHAPTER 2, AIR POLLUTION.

See attached summary of six (6) stack emission tests on source operation #6, granulator scrubber stack. Exhibit B(2)

0360600192 4

THESE DATA AND INFORMATION CONSIST OF APPLICATION FORMS AND OTHER EXHIBITS LISTED BY TITLE AND NUMBER OF PAGES BELOW.

Exhibit B(2) Summary of stack emission tests - source operation #6 (1 page) Ammoniator/Granulator
Exhibit 4 Composition of raw materials used - 1 Page
Exhibit 5 Name of products manufactured - 2 Pages

4

Granulator Scrubber
Source Operation #6

I.D. NO. | | | | | | | | | FOR OFFICIAL USE ONLY PERMIT APPLICATION NO. S | | | | | | |

GENERAL INFORMATION

NOTE: APPLICANT MUST SUBMIT TWO COPIES (THREE IF LOCATED IN COOK COUNTY) OF EACH OF THE FOLLOWING:

1. CONSTRUCTION PERMIT APPLICATION FORM (SEPARATE APPLICATION FORM FOR EACH EMISSION SOURCE NOT COVERED BY AN ATTACHED ADDENDUM).
2. DIMENSIONED DRAWINGS, PLAN, ELEVATION (SECTIONED WHERE NECESSARY AND WHERE APPLICABLE), PLOT PLAN AND MAP SHOWING DISTANCES TO NEAREST BOUNDARY OF THE PROPERTY ON WHICH THE EMISSION SOURCE IS LOCATED AND THE DISTANCES TO NEAREST RESIDENCES, LODGINGS, NURSING HOMES, HOSPITALS, SCHOOLS AND COMMERCIAL AND MANUFACTURING ESTABLISHMENTS.
3. FLOW DIAGRAM AS SPECIFIED IN THE INSTRUCTION SHEET.

14. NAME OF PROCESS: Chemical Fertilizer-Ammoniation/Granulator	15. NAME OF EMISSION SOURCE EQUIPMENT: Ammoniator/Granulator
16. EMISSION SOURCE EQUIPMENT MANUFACTURER: Walter Renneburg & Sons	17. MODEL NUMBER: N.A. / 18. SERIAL NUMBER: None
19. NUMBER OF IDENTICAL EMISSION SOURCES: 1	20. TYPE PROCESS: ☒ CONTINUOUS ☐ BATCH
21. PROCESS WEIGHT RATE: Min. 26,000 - Max. 100,000 LB/HR	22. BATCH RATE: _____ BATCH/HR _____ LB/H

23. COMPOSITION OF RAW MATERIALS USED IN THE PROCESS AND PERCENT OF EACH BY WEIGHT (COMMON NAME SHOULD BE GIVEN IF CHEMICAL NAME IS UNKNOWN)

See attached Exhibit #4

24. NAME OF PRODUCTS MANUFACTURED:	MAXIMUM PRODUCTION RATE FOR EACH PRODUCT:	ESTIMATED AVERAGE PRODUCTION RATE OF EACH PRODUCT:
a. Agricultural Plant Food - See Exhibit 5	b. 50,000 LB/HR	c. 44,000 LB/
d. Heavy Weight Garden Line Grades - See Exhibit 5	e. 50,000 LB/HR	f. 44,000 LB/
g. Light Weight Garden Line Grades - See Exhibit 5	h. 26,000 LB/HR	i. 24,000 LB/

25. WASTE MATERIALS FROM MANUFACTURING PROCESS:	MAXIMUM AMOUNT OF WASTE MATERIALS PRODUCED.	ESTIMATED AVERAGE AMOUNT OF WASTE MATERIALS PRODUCED.
a. Dry Tailings from Clean-up of Spills	b. Estimated 3300* LB/HR	c. 2200 LB/
d. Wet Tailings from Scrubbers	e. 2400 LB/HR	f. 1800 LB/
g. _____	h. _____ LB/HR	i. _____ LB/

26. AVERAGE OPERATION TIME OF EMISSION SOURCE: 16 HRS/DAY 5 DAYS/WK 46 WKS/YR

27. PERCENT OF ANNUAL THROUGHPUT: DEC/FEB 25 % MAR/MAY 45 % JUNE/AUG 14 % SEP/NOV 1

* Returned to process as part of dry solids - (not recycle fines)

I.D. NO. [ ] FOR OFFICIAL USE ONLY PERMIT APPLICATION NO. S [ ]

EXHAUST GAS ANALYSIS
(FROM EMISSION SOURCE TO CONTROL EQUIPMENT)

NOTE: IF THE EMISSION SOURCE WHICH IS THE SUBJECT OF THIS CONSTRUCTION PERMIT APPLICATION IS SERVED BY MORE THAN ONE EXHAUST STACK OR VENT, THE APPLICANT SHALL COMPLETE SEPARATE SHEETS FOR EACH SUCH STACK OR VENT.

CONTAMINANT	CONCENTRATION	EMISSION RATE	METHOD OF MEASURE AND ANALYSIS	METHOD OF MONITORING
28. CARBON MONOXIDE	a. PPM	b. LB/HR	c.	d.
29. CARBON DIOXIDE	a. PPM	b. LB/HR	c.	d.
30. CHLORINE	a. PPM	b. LB/HR	c.	d.
31. HYDROCARBONS AS CH_4	a. PPM	b. LB/HR	c.	d.
32. HYDROGEN CHLORIDE	a. PPM	b. LB/HR	c.	d.
33. HYDROGEN SULFIDE	a. PPM	b. LB/HR	c.	d.
34. NITROGEN	a. PPM	b. LB/HR	c.	d.
35. NITROGEN OXIDES AS NO_2	a. PPM	b. LB/HR	c.	d.
36. SULFUR DIOXIDE	a. PPM	b. LB/HR	c.	d.
37. OTHER NH_3 (SPECIFY)	a. 1600 to 8000 PPM	b. Range from 27 to 134 LB/HR	c. Materials Balance Calcs.	d.
38. PARTICULATE MATTER	a. .041 GRAIN/SCF	b. 2.2 LB/HR	c. Tests	d.

39. PARTICULATE MATTER COMPOSITION EXPRESSED AS PERCENT BY WEIGHT OF EACH COMPONENT (COMMON NAME SHALL BE GIVEN IF CHEMICAL NAME IS UNKNOWN):

Primarily Ammonium Chloride, NH_4Cl, which contains 26% N and 66% Cl

NOTE: THIS SECTION TO BE COMPLETED ONLY IF EMISSIONS ARE EXHAUSTED DIRECTLY TO THE ATMOSPHERE WITHOUT ANY CONTROL EQUIPMENT:

40. HOW EMISSIONS ARE EXHAUSTED: ☐ STACK ☐ VENT	41. GAS EXIT VELOCITY: FPS	42. GAS EXIT TEMPERATURE: °F

43. DRAFT CONTROLS: ☐ MANUAL ☐ AUTOMATIC ☐ BAROMETRIC ☐ OTHER (SPECIFY) _____

44. DISTANCE OF THE STACK OR VENT FROM THE NEAREST PLANT BOUNDRY OF THE APPLICANT: FT.	45. HEIGHT OF STACK OR VENT ABOVE GRADE: FT.
46. HEIGHT OF STACK OR VENT ABOVE ROOF: FT.	47. HEIGHT OF TALLEST BUILDING WITHIN 150 FEET: FT.
48. YOUR DESIGNATION OF STACK:	49. AREA OF STACK OR VENT AT EXIT: FT^2

50. IF OTHER EMISSION SOURCES OR AIR POLLUTION CONTROL EQUIPMENT ARE EXHAUSTED THROUGH THE STACK OR VENT SERVING THE EQUIPMENT COVERED BY THIS APPLICATION, THE APPLICANT SHALL DEFINE THE EMISSIONS FROM SUCH OTHER EQUIPMENT AND ATTACH SUCH INFORMATION TO THIS APPLICATION AS EXHIBIT G.

TOTAL NUMBER OF PAGES IN EXHIBIT G: _____

51. THE APPLICANT SHALL SUBMIT AN ESTIMATE OF THE MAXIMUM ONE-HOUR AMOUNTS OF PARTICULATE MATTER, SULFUR DIOXIDE, CARBON MONOXIDE, OXIDES OF NITROGEN, AND HYDROCARBONS (AS METHANE) EMITTED FROM ALL SOURCES LOCATED ON THE PLANT OR PREMISES, INCLUDING THE EMISSIONS ESTIMATED FROM THE EQUIPMENT COVERED BY THIS APPLICATION, AND THE AREA (IN ACRES) OF THE PLANT OR PREMISES OF THE APPLICANT.

MATERIAL	ONE-HOUR MAX. AMOUNTS	MATERIAL	ONE-HOUR MAX. AMOUNTS	MATERIAL	ONE-HOUR MAX. AMOUNTS
PARTICULATE MATTER	35.2 LB	SULFUR DIOXIDE	1.44 LB	NITROGEN OXIDES AS NO_2	2.45 LB
HYDROCARBONS AS CH_4	- LB	CARBON MONOXIDE	- LB	NH_3 - 134 lbs/hr max.	

Area: 10.34 acres

EXHIBIT - 4

(Item 23)

Composition of raw materials used in process and range in percent by weight for all products when used in formulation

	Composition	Range in lbs/ton Product Min.	Max.	Range in Weight Percent Min.	Max.
Triple Super phosphate	46%-P_2O_5	25	921	1.25	46.00
Diammonium Phosphate	18-46-0	274	583	13.70	29.20
Phosphoric Acid	54% P.05	21	460	1.05	23.00
Sulfuric Acid	66° Be	25	250	1.25	12.50
Anhydrous Ammonia	82% N	25	122		
Sulfate of Ammonia	21% N	63	900	3.15	45.00
Muriate of Potash	60%-K_2O	128	1000		50.00
Sodium Borate	65%	-	50	-	2.50
NEL (A micronutrient blend)	Comprises Zn, Mn,Cu & Fe Sulfate	-	15	-	0.75
Sand	Riverbed Sand	51	364	2.55	18.20
MAP	13-52-0	154	385	7.70	19.25
IBDU (IsoButyl, Diurea)	31%N	-	1034	-	51.70
Sulfate of Potash	50% K_2O	-	407	-	20.35
Sulfate Potash of Magnesia		138	166	6.90	8.30
Ferro Fritz (Micronutrient Blend)		-	34	-	1.70
Ferrous Sulfate		5	80	0.25	4.00
Urea	46% N	-	356	-	17.80
Vermiculite (Bulking Agent)		270	416	13.5	20.80

EXHIBIT - 5

(Item 24)

NAME OF PRODUCTS MANUFACTURED

(a) Agricultural Plant Food

Trade Mark Name	Guaranteed Analysis (N) - (P_2O_5) - (K_2O)	
Red Steer	15 - 10 - 10	
Red Steer	14 - 14 - 14	
Red Steer (In process flow diagram, drawing #102)	12 - 12 - 12	Example: In Process Flow Diagram
Red Steer	8 - 32 - 16	
Red Steer	6 - 24 - 24	
Red Steer	5 - 20 - 20	
Brimm	6 - 24 - 24	
Certified Harvest King	7 - 28 - 7	
Certified Harvest King	7 - 21 - 21	
Certified Harvest King	5 - 25 - 15	
Certified Harvest King	3 - 10 - 30	
Certified Harvest King	0 - 10 - 30	

(b) Garden Line (Heavy Weight)

Par-Ex (Swift Agricultural Chemical)	24 - 4 - 12	
Par-Ex (Swift Agricultural Chemical)	24 - 0 - 12	
K-Mart (Private Label)	20 - 10 - 5	
K-Mart (Private Label)	10 - 10 - 10	
K-Mart (Private Label)	10 - 6 - 4	
Otasco (Private Label)	10 - 20 - 10	
All-Purpose Vigoro (Swift Agricultural Chemical)	10 - 6 - 4	

EXHIBIT - 5 (Continued)

	Guaranteed Analysis (N)	(P_2O_5)	(K_2O)
(c) Garden Line (Light Weight)			
Golden Vigoro (Swift Agricultural Chemical)	24 -	4 -	8
Earl May (Private Label)	24 -	4 -	8
K-Gro (Private Label)	23 -	7 -	7
Vigoro (Swift Agricultural Chemical)	10 -	6 -	4

APC-64 (C)

STATE OF ILLINOIS
ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF AIR POLLUTION CONTROL
2200 CHURCHILL ROAD
SPRINGFIELD, ILLINOIS 62706

RICHARD B. OGILVIE, GOVERNOR
WILLIAM L. BLASER, DIRECTOR

DATA AND INFORMATION FOR EXISTING EMISSION SOURCE

002
SO2

#12
Dryer/Cooler Scrubber

FOR OFFICIAL USE ONLY
I.D. NO.
PERMIT NO. C
DATE

1a. NAME OF OWNER: Swift Chemical Company	1b. NAME OF OPERATOR: Swift Chemical Company
2a. STREET ADDRESS OF OWNER: 111 West Jackson Blvd.	2b. STREET ADDRESS OF OPERATOR: 2501 North Kingshighway
3a. CITY OF OWNER: Chicago	3b. CITY OF OPERATOR: Fairmont City
4a. STATE OF OWNER: Illinois; 4b. ZIP CODE: 60604	5a. STATE OF OPERATOR: Illinois; 5b. ZIP CODE: 62201

6. NAME OF CORPORATE DIVISION OR PLANT (IF DIFFERENT FROM OWNER):

7. LOCATED WITHIN CITY LIMITS: ☑ YES ☐ NO	8. STREET ADDRESS OF EMISSION SOURCE: 2501 North Kingshighway
9a. CITY: Fairmont City; 9b. LOCATED WITHIN CITY LIMITS: ☑ YES ☐ NO	10. COUNTY: St. Clair; 11. ZIP CODE: 62201

12. WAS THE EQUIPMENT DESCRIBED IN THIS INFORMATIONAL FORM INSTALLED AT THE PLANT OR PREMISES OF THE APPLICANT ON OR BEFORE APRIL 14, 1972?

☒ YES ☐ NO

IF "NO," STATE WHETHER THE APPLICANT HAD, ON OR BEFORE APRIL 14, 1972, ENTERED INTO A BINDING AGREEMENT OR CONTRACTUAL OBLIGATION TO UNDERTAKE AND COMPLETE, WITHIN A REASONABLE TIME, A CONTINUOUS PROGRAM OF CONSTRUCTION OR MODIFICATION OF THE EQUIPMENT DESCRIBED IN THIS INFORMATIONAL FORM:

☐ YES ☐ NO

THE APPLICANT SHALL PROVIDE THE RESULTS OF TESTS CONDUCTED IN ACCORDANCE WITH APPLICABLE REGULATIONS OF CHAPTER 2, AIR POLLUTION, WHICH SHOW WHETHER OR NOT THE EMISSIONS OF CONTAMINANTS FROM THIS EMISSION SOURCE, EITHER ALONE OR IN COMBINATION WITH CONTAMINANTS FROM OTHER SOURCES LOCATED AT THE SAME PLANT OR PREMISES OF THE APPLICANT, COMPLY WITH APPLICABLE SUBSTANTIVE REGULATIONS OF CHAPTER 2, AIR POLLUTION.

IN LIEU OF ONE OR MORE OF SUCH TESTS, THE APPLICANT MAY SUBMIT OTHER STANDARD TESTING INFORMATION OR THE DETAILS AND RESULTS OF ENGINEERING STUDIES SUFFICIENT TO ACCURATELY ESTIMATE THE RATES OF EMISSIONS OF CONTAMINANTS FROM THIS EMISSION SOURCE AND FURTHER TO SHOW WHETHER OR NOT THE EMISSIONS OF SUCH CONTAMINANTS, EITHER ALONE OR IN COMBINATION WITH CONTAMINANTS FROM OTHER SOURCES LOCATED AT THE SAME PLANT OR PREMISES OF THE APPLICANT, COMPLY WITH APPLICABLE SUBSTANTIVE REGULATIONS OF CHAPTER 2, AIR POLLUTION.

0 3 6 6 0 0 1 9 3 1

See attached summary of fourteen (14) Stack Emission Tests on source operation #12, Dryer/Cooler Scrubber stack. Reports from the testing organizations are enclosed for* the emissions tests made on March 4, 1971 and on October 5, 1971. Illinois EPA observers were present at those tests. Reports are available for the other tests if required.

*These were furnished with original Operating Permit Application mailed on September 30, 1972, to Ill.EPA

THESE DATA AND INFORMATION CONSIST OF APPLICATION FORMS AND OTHER EXHIBITS LISTED BY TITLE AND NUMBER OF PAGES BELOW.

Exhibit - 3, Summary of Stack Emission Tests - Source Operation #12 Dryer/Cooler-1 page

11

I.D. NO. [ ] FOR OFFICIAL USE ONLY PERMIT APPLICATION NO. S [ ]

GENERAL INFORMATION

NOTE: APPLICANT MUST SUBMIT TWO COPIES (THREE IF LOCATED IN COOK COUNTY) OF EACH OF THE FOLLOWING:

1. CONSTRUCTION PERMIT APPLICATION FORM (SEPARATE APPLICATION FORM FOR EACH EMISSION SOURCE NOT COVERED BY AN ATTACHED ADDENDUM).
2. DIMENSIONED DRAWINGS, PLAN, ELEVATION (SECTIONED WHERE NECESSARY AND WHERE APPLICABLE), PLOT PLAN AND MAP SHOWING DISTANCES TO NEAREST BOUNDARY OF THE PROPERTY ON WHICH THE EMISSION SOURCE IS LOCATED AND THE DISTANCES TO NEAREST RESIDENCES, LODGINGS, NURSING HOMES, HOSPITALS, SCHOOLS AND COMMERCIAL AND MANUFACTURING ESTABLISHMENTS.
3. FLOW DIAGRAM AS SPECIFIED IN THE INSTRUCTION SHEET.

14. NAME OF PROCESS: Chemical Fertilizer -Dryer & Cooler Operations	15. NAME OF EMISSION SOURCE EQUIPMENT: Dryer and Cooler
16. EMISSION SOURCE EQUIPMENT MANUFACTURER: Edward Renneburg & Sons Co.	17. MODEL NUMBER: N.A. / 18. SERIAL NUMBER: N.A.
19. NUMBER OF IDENTICAL EMISSION SOURCES: 1	20. TYPE PROCESS: ☒ CONTINUOUS ☐ BATCH
21. PROCESS WEIGHT RATE: Min.26,000 - Max. 100,000 LB/HR	22. BATCH RATE: _____ BATCH/HR _____ LB/

23. COMPOSITION OF RAW MATERIALS USED IN THE PROCESS AND PERCENT OF EACH BY WEIGHT (COMMON NAME SHOULD BE GIVEN IF CHEMICAL NAME IS UNKNOWN)

See Exhibit 4 attached to APC-64(B)

24. NAME OF PRODUCTS MANUFACTURED:	MAXIMUM PRODUCTION RATE FOR EACH PRODUCT:	ESTIMATED AVERAGE PRODUCTION RATE OF EACH PRODUCT:
a. Agricultural Plant Food-See Exhibit 5	b. 50,000 LB/HR	c. 44,000 LB/
d. Heavy Weight Garden Line Grades-See Exhibit 5	e. 50,000 LB/HR	f. 44,000 LB/
g. Light Weight Garden Line Grades -See Exhibit 5	h. _____ LB/HR	i. _____ LB/

25. WASTE MATERIALS FROM MANUFACTURING PROCESS:	MAXIMUM AMOUNT OF WASTE MATERIALS PRODUCED.	ESTIMATED AVERAGE AMOUNT OF WASTE MATERIALS PRODUCED.
a. Dry Tailings from Spills Cleanup	b. Est.3300* LB/HR	c. 2200 LB/
d. Wet Tailings from Scrubbers	e. 2400 LB/HR	f. 1200 LB/
g. _____	h. _____ LB/HR	i. _____ LB/

26. AVERAGE OPERATION TIME OF EMISSION SOURCE: 16 HRS/DAY 5 DAYS/WK 46 WKS/YR

27. PERCENT OF ANNUAL THROUGHPUT: DEC/FEB 25 % MAR/MAY 45 % JUNE/AUG 14 % SEP/NOV 1

* Returned to process as part of dry solids - (not recycle fines)

Dryer/Cooler Scrubber Stac
Source Operation #12

I.D. NO. | | | | | | | | | FOR OFFICIAL USE ONLY PERMIT APPLICATION NO. S | | | | | | |

EXHAUST GAS ANALYSIS
(FROM EMISSION SOURCE TO CONTROL EQUIPMENT)

NOTE: IF THE EMISSION SOURCE WHICH IS THE SUBJECT OF THIS CONSTRUCTION PERMIT APPLICATION IS SERVED BY MORE THAN ONE EXHAUST STACK OR VENT, THE APPLICANT SHALL COMPLETE SEPARATE SHEETS FOR EACH SUCH STACK OR VENT.

CONTAMINANT	CONCENTRATION By Rel.	EMISSION RATE	METHOD OF MEASURE AND ANALYSIS	METHOD OF MONITORING
28. CARBON MONOXIDE	a. None PPM	b. 0 LB/HR	c.	d. None
29. CARBON DIOXIDE	a. 750 PPM	b. 128 LB/HR	c. Comoustion data in reference cited below	d. None
30. CHLORINE	a. None PPM	b. 0 LB/HR	c.	d. None
31. HYDROCARBONS AS CH_4	a. PPM	b. LB/HR	c.	d. None
32. HYDROGEN CHLORIDE	a. None PPM	b. 0 LB/HR	c.	d. None
33. HYDROGEN SULFIDE	a. None PPM	b. 0 LB/HR	c.	d. None
34. NITROGEN	a. 78% ~~PPM~~	b. 84,280 LB/HR	c.	d. None
35. NITROGEN OXIDES AS NO_2	a. 2.3 PPM	b. LB/HR	c. Comoustion data in reference cited below	d. None
36. SULFUR DIOXIDE	a. 23 PPM	b. max.5.8 LB/HR	c. Combustion data from Perrys' 4th ed.9-6	d. None
37. OTHER (SPECIFY)	a. O_2=20% PPM	b. 24,698 LB/HR	c.	d. none
38. PARTICULATE MATTER	a. 10 GRAIN/SCF	b. 2142 LB/HR	c. Stack Tests	d. None

39. PARTICULATE MATTER COMPOSITION EXPRESSED AS PERCENT BY WEIGHT OF EACH COMPONENT (COMMON NAME SHALL BE GIVEN IF CHEMICAL NAME IS UNKNOWN):
Varies with grade being made - see exhibit 4 showing range in % of input raw materials. Average particulate is 23% N, 10% P_2O_5 and 8% K_2O derived mainly from Ammonium Sulfate, Ammonium Phosphate and Potassium Chloride

NOTE: THIS SECTION TO BE COMPLETED ONLY IF EMISSIONS ARE EXHAUSTED DIRECTLY TO THE ATMOSPHERE WITHOUT ANY CONTROL EQUIPMENT:

40. HOW EMISSIONS ARE EXHAUSTED: ☐ STACK ☐ VENT	41. GAS EXIT VELOCITY: FPS	42. GAS EXIT TEMPERATURE: °F

43. DRAFT CONTROLS: ☐ MANUAL ☐ AUTOMATIC ☐ BAROMETRIC ☐ OTHER (SPECIFY)

44. DISTANCE OF THE STACK OR VENT FROM THE NEAREST PLANT BOUNDRY OF THE APPLICANT: FT.	45. HEIGHT OF STACK OR VENT ABOVE GRADE: FT.
46. HEIGHT OF STACK OR VENT ABOVE ROOF: FT.	47. HEIGHT OF TALLEST BUILDING WITHIN 150 FEET: FT.
48. YOUR DESIGNATION OF STACK:	49. AREA OF STACK OR VENT AT EXIT: FT^2

50. IF OTHER EMISSION SOURCES OR AIR POLLUTION CONTROL EQUIPMENT ARE EXHAUSTED THROUGH THE STACK OR VENT SERVING THE EQUIPMENT COVERED BY THIS APPLICATION, THE APPLICANT SHALL DEFINE THE EMISSIONS FROM SUCH OTHER EQUIPMENT AND ATTACH SUCH INFORMATION TO THIS APPLICATION AS EXHIBIT G.

TOTAL NUMBER OF PAGES IN EXHIBIT G: _____

51. THE APPLICANT SHALL SUBMIT AN ESTIMATE OF THE MAXIMUM ONE-HOUR AMOUNTS OF PARTICULATE MATTER, SULFUR DIOXIDE, CARBON MONOXIDE, OXIDES OF NITROGEN, AND HYDROCARBONS (AS METHANE) EMITTED FROM ALL SOURCES LOCATED ON THE PLANT OR PREMISES, INCLUDING THE EMISSIONS ESTIMATED FROM THE EQUIPMENT COVERED BY THIS APPLICATION, AND THE AREA (IN ACRES) OF THE PLANT OR PREMISES OF THE APPLICANT.

MATERIAL	ONE-HOUR MAX. AMOUNTS	MATERIAL	ONE-HOUR MAX. AMOUNTS	MATERIAL	ONE-HOUR MAX. AMOUNTS
PARTICULATE MATTER	35.2 LB	SULFUR DIOXIDE	1.44 LB	NITROGEN OXIDES AS NO_2	2.45 LB
HYDROCARBONS AS CH_4	LB	CARBON MONOXIDE	LB	NH_3 -134 lbs/hr max.	

Area= 10.34 acres

APC-64

EXHIBIT - B(3)

A summary of stack emission tests at Swift Chemical Company Plant in Fairmont City, Illinois - Dryer/Cooler Scrubber, an American Air Filter Company Type "R" Roto-Clone Emission Source #12

Source Operation	Date	Tested By	EPA Observers	Air Volume (SCFM)	Total Particulate Emission (lbs/h
#12 Dry Cooler					
Roto-Clone Scrubber	1/21/71	(1)	None	30,305	27.0
Roto-Clone Scrubber	1/21/71	(1)	None	31,505	23.1
Roto-Clone Scrubber	2/12/71	(1)	None	30,600	12.1
Roto-Clone Scrubber	2/12/71	(1)	None	29,585	11.2
Roto-Clone Scrubber	3/4/71	(1)	Mr. Telford and Mr. Beck	30,670	18.1
Roto-Clone Scrubber	3/4/71	(1)		30,670	21.6
Roto-Clone Scrubber	4/14/71	(1)	Mr. Burroughs	28,790	4.21
Roto-Clone Scrubber	4/14/71	(1)	Mr. Burroughs	28,790	2.86
Roto-Clone Scrubber	9/17/71	(2)	None	30,000	23.0
Roto-Clone Scrubber	9/17/71	(2)	None	39,700	27.8
Roto-Clone Scrubber	9/17/71	(2)	None	30,300	33.1
Roto-Clone Scrubber	9/17/71	(2)	None	30,300	13.1
Roto-Clone Scrubber	10/5/71	(2)	Mr. Telford and Mr. Beck	30,000	8.8
Roto-Clone Scrubber	10/5/71	(2)		31,100	8.2
Average 14 tests				38,880	16.72

(1) Industrial Testing Laboratories Inc., St. Louis, Mo.
Test Engineer: Mr. M. F. Fuller

(2) Ryckman, Edgerly, Tomlinson & Associates, St. Louis, Mo.
Test Engineer: Mr. W. E. Anderson

STATE OF ILLINOIS
ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF AIR POLLUTION CONTROL
2200 CHURCHILL ROAD
SPRINGFIELD, ILLINOIS 62706

RICHARD B. OGILVIE, GOVE
WILLIAM L. BLASER, DIRE

DATA AND INFORMATION
FOR EXISTING
AIR POLLUTION CONTROL EQUIPMENT
Source Operation #6

C01
S01

FOR OFFICIAL USE ONLY
I.D. NO.
PERMIT NO. C
DATE

1a. NAME OF OWNER: Swift Chemical Company	1b. NAME OF OPERATOR: Swift Chemical Company
2a. STREET ADDRESS OF OWNER: 111 West Jackson Blvd.	2b. STREET ADDRESS OF OPERATOR: 2501 N. Kingshighway (Il.#111)
3a. CITY OF OWNER: Chicago	3b. CITY OF OPERATOR: Fairmont City
4a. STATE OF OWNER: Illinois; 4b. ZIP CODE: 60604	5a. STATE OF OPERATOR: Illinois; 5b. ZIP CODE: 62201

6. NAME OF CORPORATE DIVISION OR PLANT (IF DIFFERENT FROM OWNER):

7. LOCATED WITHIN CITY LIMITS: ☒ YES ☐ NO	8. STREET ADDRESS OF EMISSION SOURCE: 2501 N. Kingshighway (Il.#111)
9a. CITY: Fairmont City; 9b. LOCATED WITHIN CITY LIMITS: ☒ YES ☐ NO	10. COUNTY: St. Clair; 11. ZIP CODE: 62201

12. WAS THE EQUIPMENT DESCRIBED IN THIS INFORMATIONAL FORM INSTALLED AT THE PLANT OR PREMISES OF THE APPLICANT ON OR BEFORE APRIL 14, 1972?

☒ YES ☐ NO

IF "NO," STATE WHETHER THE APPLICANT HAD, ON OR BEFORE APRIL 14, 1972, ENTERED INTO A BINDING AGREEMENT OR CONTRACTUAL OBLIGATION TO UNDERTAKE AND COMPLETE, WITHIN A REASONABLE TIME, A CONTINUOUS PROGRAM OF CONSTRUCTION OR MODIFICATION OF THE EQUIPMENT DESCRIBED IN THIS INFORMATIONAL FORM:

☐ YES ☐ NO

13. THE APPLICANT SHALL PROVIDE THE RESULTS OF TESTS CONDUCTED IN ACCORDANCE WITH APPLICABLE REGULATIONS OF CHAPTER 2, AIR POLLUTION, WHICH SHOW WHETHER OR NOT THE EMISSIONS OF CONTAMINANTS FROM THIS EMISSION SOURCE, EITHER ALONE OR IN COMBINATION WITH CONTAMINANTS FROM OTHER SOURCES LOCATED AT THE SAME PLANT OR PREMISES OF THE APPLICANT, COMPLY WITH APPLICABLE SUBSTANTIVE REGULATIONS OF CHAPTER 2, AIR POLLUTION.

IN LIEU OF ONE OR MORE OF SUCH TESTS, THE APPLICANT MAY SUBMIT OTHER STANDARD TESTING INFORMATION OR THE DETAILS AND RESULTS OF ENGINEERING STUDIES SUFFICIENT TO ACCURATELY ESTIMATE THE RATES OF EMISSIONS OF CONTAMINANTS FROM THIS EMISSION SOURCE AND FURTHER TO SHOW WHETHER OR NOT THE EMISSIONS OF SUCH CONTAMINANTS, EITHER ALONE OR IN COMBINATION WITH CONTAMINANTS FROM OTHER SOURCES LOCATED AT THE SAME PLANT OR PREMISES OF THE APPLICANT, COMPLY WITH APPLICABLE SUBSTANTIVE REGULATIONS OF CHAPTER 2, AIR POLLUTION.

See exhibit #B(2) for results of stack tests on Source Operation #6 - attached to APC-64(B)

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THESE DATA AND INFORMATION CONSIST OF APPLICATION FORMS AND OTHER EXHIBITS LISTED BY TITLE AND NUMBER OF PAGES BELOW.

APC - 62 4 pages.

I.D. NO. | | | | | | | | | FOR OFFICIAL USE ONLY PERMIT APPLICATION NO. C | | | | | |

GENERAL INFORMATION

NOTE: APPLICANT MUST SUBMIT TWO COPIES (THREE IF LOCATED IN COOK COUNTY) OF EACH OF THE FOLLOWING:
1. CONSTRUCTION PERMIT APPLICATION FORM (SEPARATE APPLICATION FORMS FOR EACH ITEM OF CONTROL EQUIPMENT NOT COVERED BY AN ATTACHED ADDENDUM).
2. DIMENSIONED DRAWINGS, PLAN,ELEVATION (SECTIONED WHERE NECESSARY AND WHERE APPLICABLE) PLOT PLAN AND MAP SHOWING DISTANCES TO NEAREST BOUNDARY OF THE PROPERTY ON WHICH THE CONTROL EQUIPMENT IS LOCATED, AND THE DISTANCES TO NEAREST RESIDENCES, LODGINGS, NURSING HOMES, HOSPITALS, SCHOOLS, AND COMMERCIAL AND MANUFACTURING ESTABLISHMENTS.
3. FLOW DIAGRAM AS SPECIFIED IN THE INSTRUCTION SHEET.

	PRIMARY CONTROL EQUIPMENT	SECONDARY CONTROL EQUIPMENT	TERTIARY CONTROL EQUIPM
14. TYPE OF CONTROL EQUIPMENT: (e.g., MULTICLONE, BAGHOUSE)	a. Wet Cyclone	b.	c.
15. MANUFACTURER:	a. Ceilcote Inc.	b.	c.
16. MODEL:	a. VWC-88	b.	c.
17. SERIAL NUMBER:	a.	b.	c.
18. COST OF CONTROL EQUIPMENT: (NOT INCLUDING INSTALLATION)	a. $ 9500	b. $	c. $
19. INLET GAS RATE (CFM AT INLET TEMPERATURE & PRESSURE):	a. 6700 CFM	b. CFM	c.
20. INLET GAS RATE (AT STANDARD CONDITIONS):	a. 6200 SCFM	b. SCFM	c.
21. INLET TEMPERATURE (AT POINT OF INLET GAS RATE MEASUREMENT):	a. 110 °F	b. °F	c.
22. EXHAUST GAS RATE (CFM AT EXHAUST TEMPERATURE & PRESSURE):	a. 6650 CFM	b. CFM	c.
23. EXHAUST TEMPERATURE (AT POINT OF EXHAUST GAS RATE MEASUREMENT):	a. 105 °F	b. °F	c.
24. DUCT VELOCITY (AT POINT OF INLET GAS RATE MEASUREMENT): (27"x14")	a. 42 FPS	b. FPS	c.
25. INLET GRAIN LOADING (AT POINT OF INLET GAS RATE MEASUREMENT):	a. 0.41 GRS/SCF	b. GRS/SCF	c. GRS
26. GEOMETRIC MEAN DIAMETER OF PARTICULATE MATTER:	a. N.A. MICRON	b. MICRON	c. MI
27. STANDARD GEOMETRIC DEVIATION OF DISTRIBUTION OF PARTICLE SIZE BY WEIGHT:	a. N.A.	b.	c.
28. INLET CONCENTRATION BY VOLUME % OF GASEOUS CONTAMINANTS IN THE TOTAL GAS STREAM. (NEED NOT SUBMIT THIS INFORMATION IF FORM APC-63 IS SUBMITTED): $	a.	b.	c.
29. PRESSURE DROP:	a. 2 INCHES OF WATER	b. INCHES OF WATER	c. INCHES OF W
30. CONTROL EQUIPMENT EFFICIENCY:	a. 90 ☐ VOL % ☒ WT %	b. ☐ VOL % ☐ WT %	c. ☐ VI ☐
31. EXHAUST GAS DEW POINT:	a. 98 °F	b. °F	c.
32. AVERAGE OPERATION TIME OF CONTROL EQUIPMENT: 16 HRS/DAY 5 DAYS/WK 46 WKS/YR		33. PERCENT OF ANNUAL THRUPUT: DEC-FEB 25 % MAR-MAY 45 % JUNE-AUG 14 % SEPT-NOV 1	

0 3 6 0 0 0 1 9 3 6

C-62

16

I.D. NO [| | | | | | |] FOR OFFICIAL USE ONLY PERMIT APPLICATION NO. C [| | | | | | |]

WET COLLECTOR GENERAL INFORMATION

	PRIMARY CONTROL EQUIPMENT	SECONDARY CONTROL EQUIPMENT	TERTIARY CONTROL EQUIPMENT
70. TYPE OF WET COLLECTOR:	☒ CYCLONE ☐ ORIFICE ☐ SPRAY ☐ MECHANICAL a. ☐ OTHER (SPECIFY)	☐ CYCLONE ☐ ORIFICE ☐ SPRAY ☐ MECHANICAL b. ☐ OTHER (SPECIFY)	☐ CYCLONE ☐ ORIFICE ☐ SPRAY ☐ MECHANICAL c. ☐ OTHER (SPECIFY)
71. INLET SCRUBBANT COMPOSITION AND WT. % EACH:	COMPOSITION / WT. % a. H_2O 80% b. Fert.Solids 20% c.	COMPOSITION / WT. % d. e. f.	COMPOSITION / WT. % g. h. i.
72. PH VALUE OF INLET SCRUBBANT:	a. 6.5	b.	c.
73. OUTLET SCRUBBANT COMPOSITION WT. % EACH:	COMPOSITION / WT. % a. H_2O 79.97 b. Fert.Solids 20.03 c.	COMPOSITION / WT. % d. e. f.	COMPOSITION / WT. % g. h. i.
74. SCRUBBANT FLOW:	a. 7200 GPH	b. GPH	c. GPH
75. SCRUBBANT MAKEUP RATE:	a. 120-240 GPH	b. GPH	c. GPH
76. SCRUBBANT MAKEUP COMPOSITION AND WT. % SOLUTE:	a. 0.06 WT. %	b. WT. %	c. WT. %
77. VAPOR PRESSURE OF LIQUID CONTAMINANT AT OPERATING TEMPERATURE:	a. PSIA	b. PSIA	c. PSIA
78. PRESSURE DROP	a. 2 INCHES OF WATER	b. INCHES OF WATER	c. INCHES OF WATER
79. TYPE OF MIST ELIMINATOR:	a. ☐ SIMPLE BAFFLES ☐ OTHER ☒ NONE	b. ☐ SIMPLE BAFFLES ☐ OTHER ☐ NONE	c. ☐ SIMPLE BAFFLES ☐ OTHER ☐ NONE
SCRUBBER	**PRIMARY CONTROL EQUIPMENT**	**SECONDARY CONTROL EQUIPMENT**	**TERTIARY CONTROL EQUIPMENT**
80. NOZZLE PRESSURE:	a. 50 PSIA	b. PSIA	c. PSIA
81. CONTACT AREA:	a. FT^2	b. FT^2	c. FT^2
82. TYPE OF PACKING:	a. None	b.	c.
83. LENGTH OF PACKED BED:	a. IN	b. IN	c. IN
84. SCRUBBER CROSS-SECTIONAL AREA:	a. 19.62 FT^2	b. FT^2	c. FT^2
VENTURI SCRUBBER	**PRIMARY CONTROL EQUIPMENT**	**SECONDARY CONTROL EQUIPMENT**	**TERTIARY CONTROL EQUIPMENT**
85. THROAT DIAMETER:	a. FT	b. FT	c. FT
86. GAS VELOCITY AT THROAT:	a. FPS	b. FPS	c. FPS
87. CORRELATION COEFFICIENT:	a.	b.	c.

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I.D. NO. | | | | | | | | | FOR OFFICIAL USE ONLY C| | | | | |

EXHAUST

89. EXHAUST GAS FROM CONTROL EQUIPMENT IS VENTED TO: ☐ INSIDE BUILDING ☒ ATMOSPHERE ☐ OTHER (SPECIFY): ______	90. YOUR DESIGNATION OF STACK OR VENT: Source Operation #6

91. HOW EMISSIONS ARE EXHAUSTED: ☒ STACK ☐ VENT	92. GAS EXIT VELOCITY: 42 FPS	93. GAS EXIT TEMPERATURE: Ranges from 80 to 110

94. DRAFT CONTROLS: ☒ MANUAL ☐ AUTOMATIC ☐ BAROMETRIC ☐ OTHER (SPECIFY) ______

95. HEIGHT OF STACK OR VENT ABOVE GRADE: 38 ft.	97. HEIGHT OF STACK OR VENT ABOVE ROOF: 14 FT	98. HEIGHT OF TALLEST BUILDING WITHIN 15 FEET: 52
99. STACK OR VENT SERVES: ☒ ONLY THIS EQUIPMENT ☐ OTHER EQUIPMENT		100. AREA OF STACK OR VENT AT EXIT: 2.63

101. IF OTHER EMISSION SOURCES OR AIR POLLUTION CONTROL EQUIPMENT ARE EXHAUSTED THROUGH THE STACK OR VENT SERVING THE EQUIPMENT COVERED BY THIS APPLICATION, THE APPLICANT SHALL DEFINE THE NATURE AND QUANTITY OF THE EMISSIONS FROM SUCH OTHER EQUIPMENT AND ATTACH SUCH INFORM... TO THIS APPLICATION AS EXHIBIT G.

TOTAL NUMBER OF PAGES IN EXHIBIT G: ______

102. THE APPLICANT SHALL SUBMIT AN ESTIMATE OF THE MAXIMUM ONE-HOUR AMOUNTS OF PARTICULATE MATTER, SULFUR DIOXIDE, CARBON MONOXIDE, OXIDES OF NITROGEN, AND HYDROCARBONS (AS METHANE) EMITTED FROM ALL SOURCES LOCATED ON THE PLANT OR PREMISES, INCLUDING THE EMISSIONS ESTIMATED FRO... THE EQUIPMENT COVERED BY THIS APPLICATION, AND THE AREA (IN ACRES) OF THE PLANT OR PREMISES OF THE APPLICANT.

MATERIAL	ONE-HOUR MAX. AMOUNTS	MATERIAL	ONE-HOUR MAX. AMOUNTS	MATERIAL	ONE-HOUR MAX. AMOUNTS
PARTICULATE MATTER	35.2 LB	SULFUR DIOXIDE	1.44 LB	NITROGEN OXIDES AS NO_2	2.45 LB
HYDROCARBONS AS CH_4	LB	CARBON MONOXIDE	LB	NH_3 - 134 lbs/hr.max.	

EXHAUST GAS ANALYSIS

CONTAMINANT	CONCENTRATION	EMISSION RATE	METHOD OF MEASURE AND ANALYSIS	METHOD OF MONITORING
104. CARBON DIOXIDE	a. PPM	b. ☐ LB/10^6BTU ☐ LB/HR	c.	d.
105. CARBON MONOXIDE	a. PPM	b. ☐ LB/10^6BTU ☐ LB/HR	c.	d.
106. CHLORINE	a. PPM	b. ☐ LB/10^6BTU ☐ LB/HR	c.	d.
107. HYDROCARBONS AS CH_4	a. PPM	b. ☐ LB/10^6BTU ☐ LB/HR	c.	d.
108. HYDROGEN CHLORIDE	a. PPM	b. ☐ LB/10^6BTU ☐ LB/HR	c.	d.
109. HYDROGEN SULFIDE	a. PPM	b. ☐ LB/10^6BTU ☐ LB/HR	c.	d.
110. NITROGEN	a. PPM	b. ☐ LB/10^6BTU ☐ LB/HR	c.	d.
111. NITROGEN OXIDES AS NO_2	a. PPM	b. ☐ LB/10^6BTU ☐ LB/HR	c.	d.
112. SULFUR DIOXIDE	a. PPM	b. ☐ LB/10^6BTU ☐ LB/HR	c.	d.
113. OTHER (SPECIFY) NH_3	a. 1600 to 8000 PPM	b. 27-134 ☐ LB/10^6BTU ☒ LB/HR	c.	d.
114. PARTICULATE MATTER	a. .041 GRAIN/SCF	b. 2.2 ☐ LB/10^6BTU ☒ LB/HR	c.	d.

115. PARTICULATE MATTER COMPOSITION EXPRESSED AS PERCENT BY WEIGHT OF EACH COMPONENT (COMMON NAME SHALL BE GIVEN IF CHEMICAL NAME IS UNKNOWN)

Primarily Ammonium Chloride, NH_4Cl, which contains 26% N and 66% Cl

APC-62

0366001938

STATE OF ILLINOIS
ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF AIR POLLUTION CONTROL
2200 CHURCHILL ROAD
SPRINGFIELD, ILLINOIS 62706

RICHARD B. OGILVIE, GOV
WILLIAM L. BLASER, DIR

C02

DATA AND INFORMATION
FOR EXISTING
AIR POLLUTION CONTROL EQUIPMENT
Source Operation #12

FOR OFFICIAL USE ONLY
I.D. NO.
PERMIT NO. C
DATE

1a. NAME OF OWNER: Swift Chemical Company	1b. NAME OF OPERATOR: Swift Chemical Company
2a. STREET ADDRESS OF OWNER: 111 West Jackson Blvd.	2b. STREET ADDRESS OF OPERATOR: 2501 North Kingshighway (Il-#111)
3a. CITY OF OWNER: Chicago	3b. CITY OF OPERATOR: Fairmont City
4a. STATE OF OWNER: Illinois; 4b. ZIP CODE: 60604	5a. STATE OF OPERATOR: Illinois; 5b. ZIP CODE: 62201

6. NAME OF CORPORATE DIVISION OR PLANT (IF DIFFERENT FROM OWNER):

7. LOCATED WITHIN CITY LIMITS: ☒ YES ☐ NO	8. STREET ADDRESS OF EMISSION SOURCE: 2501 North Kingshighway
9a. CITY: Fairmont City; 9b. LOCATED WITHIN CITY LIMITS: ☒ YES ☐ NO	10. COUNTY: St. Clair; 11. ZIP CODE: 62201

12. WAS THE EQUIPMENT DESCRIBED IN THIS INFORMATIONAL FORM INSTALLED AT THE PLANT OR PREMISES OF THE APPLICANT ON OR BEFORE APRIL 14, 1972?

☒ YES ☐ NO

IF "NO," STATE WHETHER THE APPLICANT HAD, ON OR BEFORE APRIL 14, 1972, ENTERED INTO A BINDING AGREEMENT OR CONTRACTUAL OBLIGATION TO UNDERTAKE AND COMPLETE, WITHIN A REASONABLE TIME, A CONTINUOUS PROGRAM OF CONSTRUCTION OR MODIFICATION OF THE EQUIPMENT DESCRIBED IN THIS INFORMATIONAL FORM:

☐ YES ☐ NO

13. THE APPLICANT SHALL PROVIDE THE RESULTS OF TESTS CONDUCTED IN ACCORDANCE WITH APPLICABLE REGULATIONS OF CHAPTER 2, AIR POLLUTION, WHICH SHOW WHETHER OR NOT THE EMISSIONS OF CONTAMINANTS FROM THIS EMISSION SOURCE, EITHER ALONE OR IN COMBINATION WITH CONTAMINANTS FROM OTHER SOURCES LOCATED AT THE SAME PLANT OR PREMISES OF THE APPLICANT, COMPLY WITH APPLICABLE SUBSTANTIVE REGULATIONS OF CHAPTER 2, AIR POLLUTION.

IN LIEU OF ONE OR MORE OF SUCH TESTS, THE APPLICANT MAY SUBMIT OTHER STANDARD TESTING INFORMATION OR THE DETAILS AND RESULTS OF ENGINEERING STUDIES SUFFICIENT TO ACCURATELY ESTIMATE THE RATES OF EMISSIONS OF CONTAMINANTS FROM THIS EMISSION SOURCE AND FURTHER TO SHOW WHETHER OR NOT THE EMISSIONS OF SUCH CONTAMINANTS, EITHER ALONE OR IN COMBINATION WITH CONTAMINANTS FROM OTHER SOURCES LOCATED AT THE SAME PLANT OR PREMISES OF THE APPLICANT, COMPLY WITH APPLICABLE SUBSTANTIVE REGULATIONS OF CHAPTER 2, AIR POLLUTION.

See Exhibit B(3) for results of stack tests on Source Operation #12 - Attached to APC-64(C)

THESE DATA AND INFORMATION CONSIST OF APPLICATION FORMS AND OTHER EXHIBITS LISTED BY TITLE AND NUMBER OF PAGES BELOW.

I.D. NO. | | | | | | | | | FOR OFFICIAL USE ONLY PERMIT APPLICATION NO. C | | | | |

GENERAL INFORMATION

NOTE: APPLICANT MUST SUBMIT TWO COPIES (THREE IF LOCATED IN COOK COUNTY) OF EACH OF THE FOLLOWING:
1. CONSTRUCTION PERMIT APPLICATION FORM (SEPARATE APPLICATION FORMS FOR EACH ITEM OF CONTROL EQUIPMENT NOT COVERED BY AN ATTACHED ADDENDUM).
2. DIMENSIONED DRAWINGS, PLAN, ELEVATION (SECTIONED WHERE NECESSARY AND WHERE APPLICABLE) PLOT PLAN AND MAP SHOWING DISTANCES TO NEAREST BOUNDARY OF THE PROPERTY ON WHICH THE CONTROL EQUIPMENT IS LOCATED, AND THE DISTANCES TO NEAREST RESIDENCES, LODGINGS, NURSING HOMES, HOSPITALS, SCHOOLS, AND COMMERCIAL AND MANUFACTURING ESTABLISHMENTS.
3. FLOW DIAGRAM AS SPECIFIED IN THE INSTRUCTION SHEET.

		PRIMARY CONTROL EQUIPMENT (Dryer)	SECONDARY CONTROL EQUIPMENT (Primary Cooler)	TERTIARY CONTROL EQUIPMENT (Secondary Dryer/Cooler)
14.	TYPE OF CONTROL EQUIPMENT: (e.g., MULTICLONE, BAGHOUSE)	a. Simple Cyclone	b. Simple Cyclone	c. Roto-Clone
15.	MANUFACTURER:	a. Edw. Renneberg & Son	b. Edw. Renneberg & Son	c. American Air Fi
16.	MODEL:	a.	b.	c. Type R
17.	SERIAL NUMBER:	a.	b.	c.
18.	COST OF CONTROL EQUIPMENT: (NOT INCLUDING INSTALLATION)	a. $ Not available from prior owner	b. $ Not available from prior owner	c. $ 20,000.
19.	INLET GAS RATE (CFM AT INLET TEMPERATURE & PRESSURE):	a. 21,200 CFM	b. 13,600 CFM	c. 34,800
20.	INLET GAS RATE (AT STANDARD CONDITIONS):	a. 18,000 SCFM	b. 12,000 SCFM	c. 30,000
21.	INLET TEMPERATURE (AT POINT OF INLET GAS RATE MEASUREMENT):	a. 165 °F	b. 140 °F	c. 155
22.	EXHAUST GAS RATE (CFM AT EXHAUST TEMPERATURE & PRESSURE):	a. 21,200 CFM	b. 13,600 CFM	c. 32,270
23.	EXHAUST TEMPERATURE (AT POINT OF EXHAUST GAS RATE MEASUREMENT):	a. 165 °F	b. 140 °F	c. 110
24.	DUCT VELOCITY (AT POINT OF INLET GAS RATE MEASUREMENT):	a. 79 FPS	b. 76 FPS	c. 77
25.	INLET GRAIN LOADING (AT POINT OF INLET GAS RATE MEASUREMENT):	a. 6.77 GRS/SCF	b. 3.4 GRS/SCF	c. 1.08 GRS
26.	GEOMETRIC MEAN DIAMETER OF * PARTICULATE MATTER:	a. See exhibits #6, 7 & 8 MICRON	b. See exhibits #6, 7 & 8 MICRON	c. N.A. MI
27.	STANDARD GEOMETRIC DEVIATION OF DISTRIBUTION OF PARTICLE SIZE BY WEIGHT:	a.	b.	c.
28.	INLET CONCENTRATION BY VOLUME % OF GASEOUS CONTAMINANTS IN THE TOTAL GAS STREAM. (NEED NOT SUBMIT THIS INFORMATION IF FORM APC-63 IS SUBMITTED): $	a.	b.	c.
29.	PRESSURE DROP:	a. 4 INCHES OF WATER	b. 3 INCHES OF WATER	c. 6 INCHES OF W
30.	CONTROL EQUIPMENT EFFICIENCY:	a. 80 ☐ VOL % ☒ WT %	b. 80 ☐ VOL % ☒ WT %	c. 94 ☐ ☐
31.	EXHAUST GAS DEW POINT:	a. °F	b. °F	c.

32. AVERAGE OPERATION TIME OF CONTROL EQUIPMENT: 16 HRS/DAY 5 DAYS/WK 46 WKS/YR

33. PERCENT OF ANNUAL THRUPUT: DEC-FEB 25 % MAR-MAY 45 % JUNE-AUG 14 % SEPT-NOV 1

0360100940

APC-62

2(

STATE OF ILLINOIS
ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF AIR POLLUTION CONTROL
2200 CHURCHILL ROAD
SPRINGFIELD, ILLINOIS 62706

RICHARD B. OLILVIE, GOVERNOR

WILLIAM L. BLASER, DIRECTO

ADDENDUM W
WASTEWATER TREATMENT
FROM
WET COLLECTORS

FOR OFFICIAL USE ONLY
I.D. NO.
PERMIT NO.
DATE

1. NAME OF OWNER: Swift Chemical Company	7. NAME OF CORPORATE DIVISION OR PLANT (IF DIFFERENT FROM OWNER)
2. TELEPHONE NUMBER: 312/431-2540	8. TELEPHONE NUMBER:
3. STREET ADDRESS OF OWNER: 111 West Jackson Blvd.	9. STREET ADDRESS OF EMISSION SOURCE: 2501 N. Kingshighway (Ill-#111)
4. CITY: Chicago	10. CITY: Fairmont City; 11. LOCATED WITHIN CITY LIMITS: [X] YES [ ] NO
5. STATE: Illinois; 6. ZIP CODE: 60604	12. COUNTY: St. Clair; 13. ZIP CODE: 62201

NOTE: COMPLETE ITEMS 14 AND 15 IF WATER DISCHARGE WILL BE A SEWER.

14. NAME AND TITLE OF PERSON CERTIFYING ADEQUATE CAPACITY OF TRANSPORT AND TREATMENT:	15. SIGNATURE AND DATE (OWNER OR AUTHORIZED AGENT OF SEWER SYSTEM AND IF APPLICABLE, TREATMENT WORKS):

PERMIT TO ( ) *CONSTRUCT ( ) *AND OPERATE *(X) AS APPLICABLE

16. WASTEWATER FLOW RATE THROUGH AIR POLLUTION CONTROL DEVICE:

Basis
120% of Average flow
120 gpm
80% of Average flow

a. MAX. FLOW 138,240 GAL/DAY
b. AVG. FLOW 115,200 GAL/DAY
c. MIN. FLOW 92,160 GAL/DAY

17. CONTAMINANTS PRESENT IN WASTEWATER	FEED WATER TO DEVICE (mg/l)	DISCHARGE FROM DEVICE (mg/l)	EFFLUENT FROM TREATMENT PROCESS (mg/l)
SUSPENDED SOLIDS	50	437	50 mg/l
TOTAL DISSOLVED SOLIDS	20%	20.4%	20.0%
pH	6.5	7.0	7.0
OTHERS ***			

*** LIST AND ANALYZE ALL OTHER CONTAMINANTS IN WASTEWATER FOR WHICH STANDARDS ARE SET BY "CHAPTER 3, WATER POLLUTION CONTROL REGULATION OF ILLINOIS." (ATTACH ADDITIONAL SHEETS IF NECESSARY.)

18. TREATMENT PROCESS (ATTACH A SCHEMATIC FLOW DIAGRAM ON 8½" x 11" SHEET(S)) SHOWING THE WASTEWATER TREATMENT PROCESS INCLUDING LOADING RATES FOR EACH COMPONENT OF WASTEWATER TREATMENT SYSTEM.

See process flow diagram - Drawing No. 102

19. NAME OF TREATMENT PLANT OR BODY OF WATER TO WHICH THE WASTE IS ULTIMATELY DISCHARGED. NONE . This is a closed loop operation and dissolved solids recovered by feeding back ~~to~~ process. The suspended solids recovered in pond pumped to drying bed on property once every 6 months.

THIS ADDENDUM WILL BE REVIEWED BY THE DIVISION OF WATER POLLUTION CONTROL AND THE APPLICANT WILL BE NOTIFIED WHETHER OR NOT ADDITIONAL DATA OR DOCUMENTATION NEED BE SUBMITTED TO CONSTITUTE A COMPLETE APPLICATION FOR PERMIT AS REQUIRED BY PART IX OF "WATER POLLUTION REGULATIONS OF ILLINOIS."

0 3 6 6 0 0 1 9 4 8

EXHIBIT - 6

PARTICULATE SIZE DISTRIBUTION* TO CYCLONES
FROM COOLER AND DRYER - WILMINGTON, N.C. TEST

PARTICLE SIZE ANALYSES

Test No.	1	2
Date	6-23-66	6-24-66
Location	Cooler Cyclone Inlet	Dryer Cyclone Inlet
Micron Size	% In Fraction	
+45	66.5	96.0
+40 -45	3.5	0.2
+35 -40	3.0	0.2
+30 -35	3.5	0.1
+25 -30	3.5	0.3
+20 -25	3.6	0.3
+15 -20	3.9	0.8
+10 -15	5.4	0.9
+5 -10	3.8	0.5
-5	3.3	0.7
Total	100.0	100.0
Specific Gravity	2.51	2.18

The foregoing particle size determination was performed in accordance with the provisions of ASME Power Test Code 28.

* To Cooler and Dryer Cyclones basis tests made at Wilmington, N. C. By Buell Engineering Co., Inc.
Product being made a 3-19-18 at 20 TPH

- EXHIBIT - 7

PARTICULATE SIZE DISTRIBUTION* TO CYCLONES
FROM COOLER AND DRYER - SAVANNAH, GA. TEST

PARTICLE SIZE ANALYSES

Test No.	7-12,13-66		7-13-66
Date	1	1	2
Location	Cyclone Inlet	Catch	Cyclone Inlet
Micron Size	GRADE 0-20-0	% In Fraction	GRADE 5-10-15
+45	51.0	41.8	73.2
+40 -45	5.3	2.8	4.0
+35 -40	5.7	3.7	4.0
+30 -35	6.0	4.2	3.8
+25 -30	8.5	5.3	3.2
+20 -25	4.1	6.0	3.0
+15 -20	5.6	6.7	2.3
+10 -15	4.8	9.1	1.6
+5 -10	3.2	8.7	2.1
-5	5.8	11.7	2.8
Total	100.0	100.0	100.0
Specific Gravity	2.48	2.36	2.29

The foregoing particle size determination was performed in accordance with the provisions of ASME Power Test Code 28.

* In combined air stream from Dryer and Cooler to Cyclone in tests at Savannah, Ga. plant by Buell Engineering Co., Inc.
Production rate 16 TPH

EXHIBIT - 8

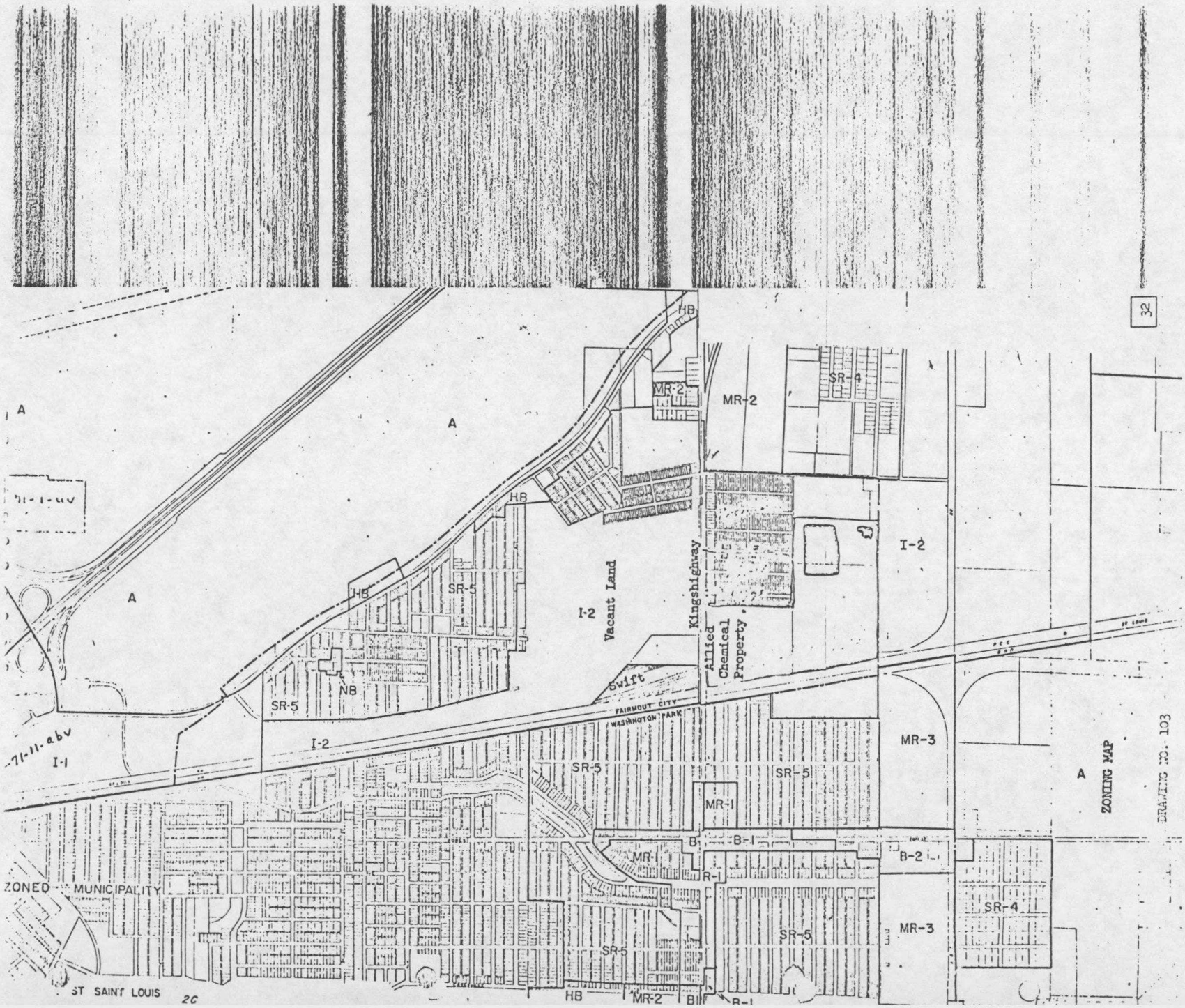
PARTICULATE SIZE DISTRIBUTION* TO CYCLONES
FROM COOLER AND DRYER - CHARLESTON, S.C. TEST

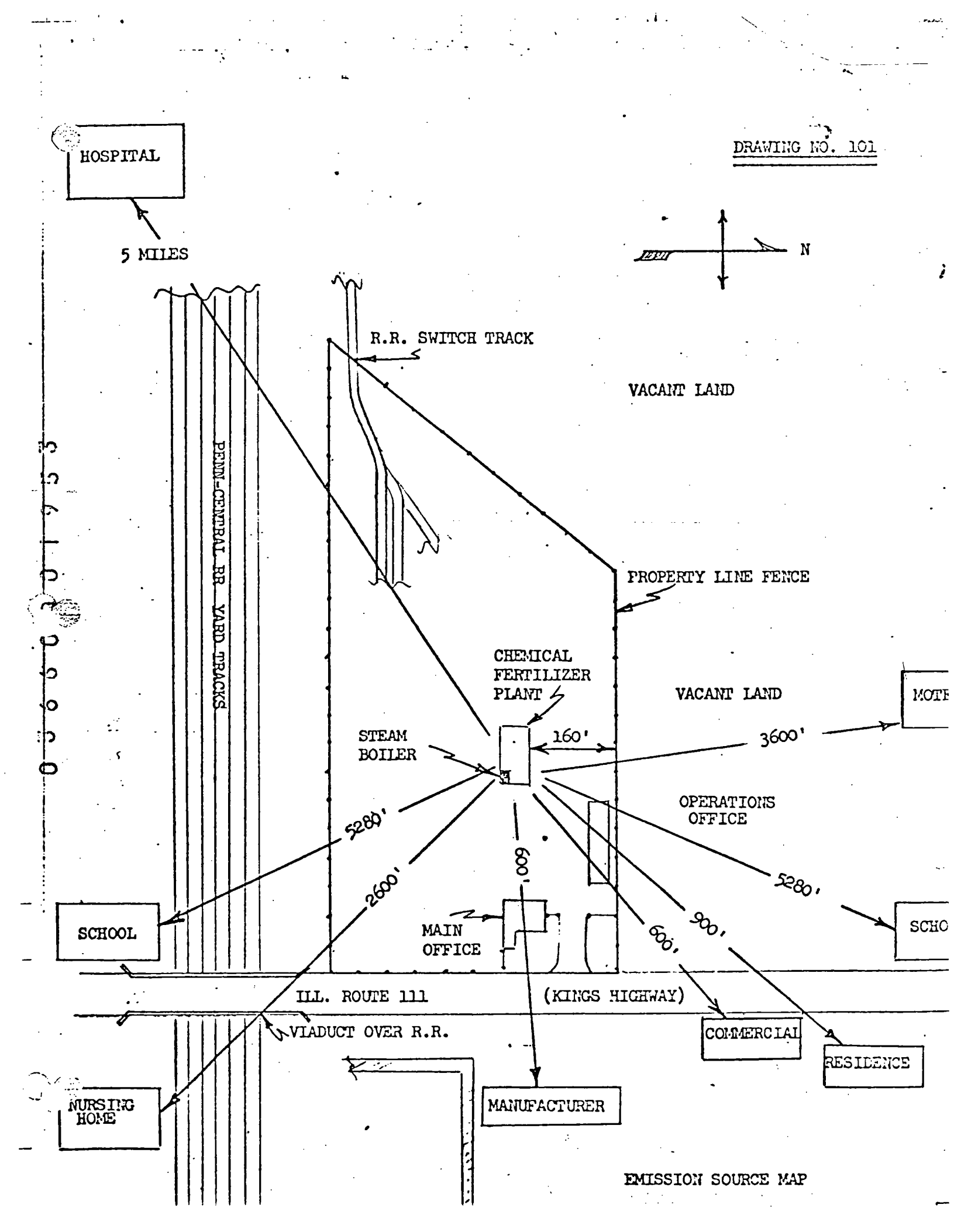
PARTICLE SIZE ANALYSES

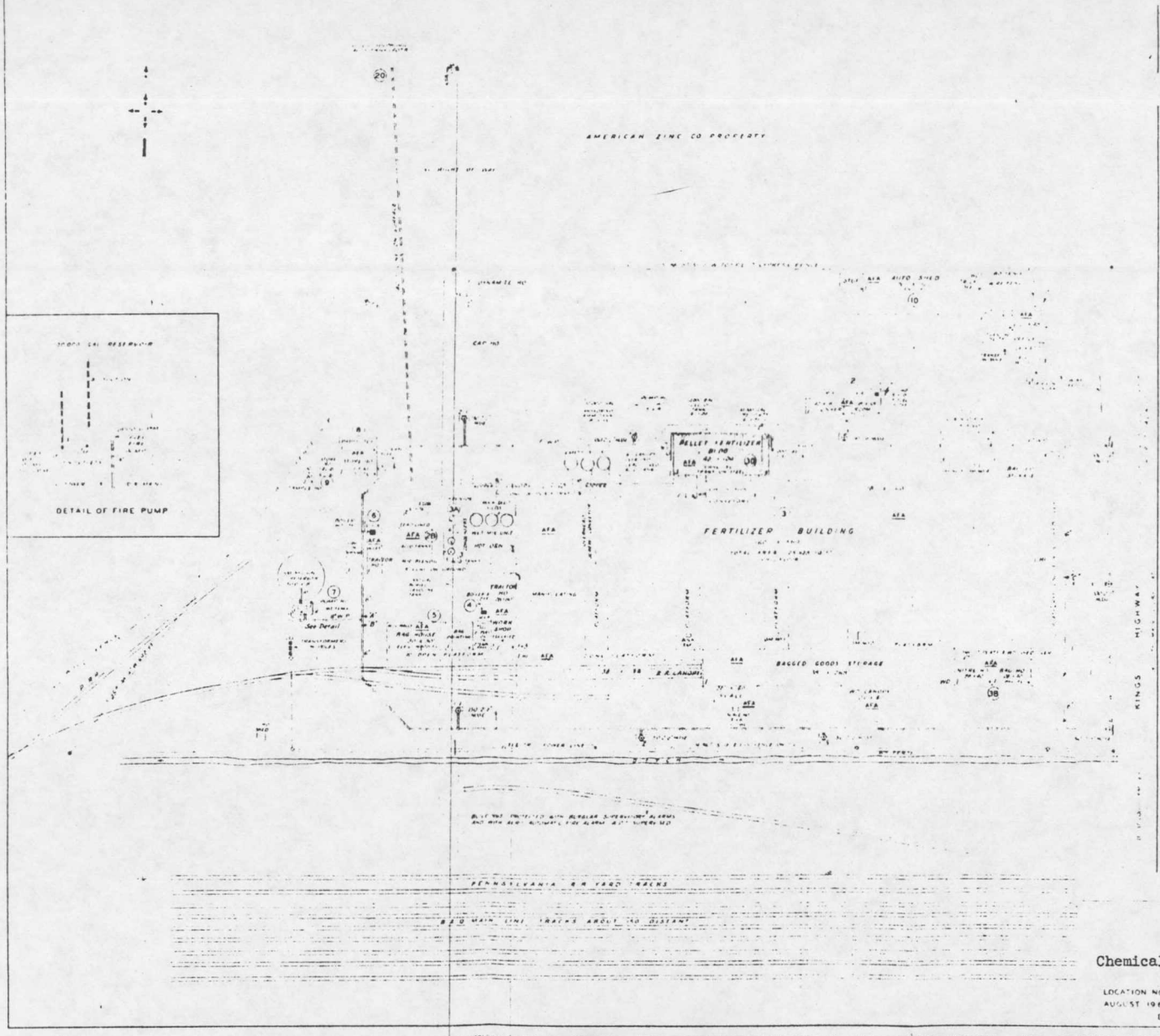
Date	7-7-66		7-11-66	
Test No.	1	1	2	2
Location	Cyclone Inlet	Catch	Cyclone Inlet	Catch
GRADE	3-9-18		GRADE 10-10-10	
Micron Size	% In Fraction			
+45	52.0	74.0	94.0	65.0
+40 -45	4.5	2.5	0.5	6.4
+35 -40	5.4	3.0	0.6	6.6
+30 -35	5.1	3.0	0.4	5.9
+25 -30	6.0	3.0	0.7	5.0
+20 -25	5.5	3.4	0.6	4.0
+15 -20	6.1	3.5	0.7	2.9
+10 -15	6.0	3.2	0.7	1.7
+5 -10	5.3	2.4	0.85	0.6
-5	4.1	2.0	0.95	1.9
Total	100.0	100.0	100.00	100.0
Specific Gravity	2.14	2.21	2.14	2.19

The foregoing particle size determination was performed in accordance with the provisions of ASME Power Test Code 28.

* In combined air stream from Dryer and Cooler to Cyclone in tests at Charleston, S.C. plant by Buell Engineering, Inc.
Production rate 20 TPH


32
HB
MR-2
MR-2
SR-4
A
A
A
HB
HB
SR-5
I-2
Vacant Land
Kingshighway
Allied Chemical Property
I-2
NB
SR-5
Swift
FAIRMOUT CITY
WASHINGTON PARK
I-2
I-1
SR-5
SR-5
MR-3
A
ZONING MAP
DRAWING NO. 103
MR-1
B-1
B-2
MR-
R-1
ZONED MUNICIPALITY
SR-4
MR-3
SR-5
SR-5
HB
MR-2
B-1
ST SAINT LOUIS
2C


DRAWING NO. 101
HOSPITAL
5 MILES
N
R.R. SWITCH TRACK
VACANT LAND
PENN-CENTRAL RR YARD TRACKS
PROPERTY LINE FENCE
CHEMICAL FERTILIZER PLANT
VACANT LAND
MOTE
STEAM BOILER
160'
3600'
OPERATIONS OFFICE
5280'
2600'
600'
5280'
900'
600'
SCHOOL
MAIN OFFICE
SCHO
ILL. ROUTE 111
(KINGS HIGHWAY)
VIADUCT OVER R.R.
COMMERCIAL
RESIDENCE
NURSING HOME
MANUFACTURER
EMISSION SOURCE MAP



PLOT PLAN

DRAWING NO. 105

37

SWIFT CHEMICAL COMPANY
Fairmont City, Illinois
Chemical Fertilizer Manufacturing Plant

LOCATION NO. 1-1 SCALE 50
AUGUST 1968 DRAWN BY J.S.F.
EXCESS INSURANCE AGENCY INCORPORATED

ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF AIR POLLUTION CONTROL
2209 CHURCHILL ROAD
SPRINGFIELD, ILLINOIS 62706

RICHARD B. OGILVIE, GOVERNOR
WILLIAM L. BLASER, DIRECTOR

ADDENDUM A
DATA AND INFORMATION
FOR EXISTING EMISSION SOURCE

FAN DATA

FOR OFFICIAL USE ONLY
I.D. NO.
PERMIT NO. S
DATE

1. NAME OF OWNER: SWIFT CHEMICAL CO.	2. NAME OF CORPORATE DIVISION OR PLANT (IF DIFFERENT FROM OWNER)
3. STREET ADDRESS OF EMISSION SOURCE: 2501 North Kingshighway	4. CITY: Fairmont City
5. MANUFACTURER OF FAN: Buffalo Forge Co.	6. MANUFACTURER OF MOTOR: Westinghouse
7. MODEL NUMBER OF FAN: Buffalo #90 MW	8. TYPE OF MOTOR: Totally enclosed
9. TYPE OF FAN BLADE: OW	10. MOTOR HORSEPOWER: 150 Hp
11. IDENTIFICATION OF FAN ON THE FLOW DIAGRAM: B-Z	12. LOCATION OF FAN: Between CY 1 & 2 and SR-2
13. MANUFACTURER OF FAN: Plastic Blower Co.	14. MANUFACTURER OF MOTOR: Allis-Chalmers
15. MODEL NUMBER OF FAN: BPH Series, Size 20	16. TYPE OF MOTOR: Totally enclosed
17. TYPE OF FAN BLADE: Open Impeller	18. MOTOR HORSEPOWER: 50 Hp
19. IDENTIFICATION OF FAN ON THE FLOW DIAGRAM: B-1	20. LOCATION OF FAN: Between R-1 and SR-1
21. MANUFACTURER OF FAN:	22. MANUFACTURER OF MOTOR:
23. MODEL NUMBER OF FAN:	24. TYPE OF MOTOR:
25. TYPE OF FAN BLADE:	26. MOTOR HORSEPOWER:
27. IDENTIFICATION OF FAN ON THE FLOW DIAGRAM:	28. LOCATION OF FAN:
29. MANUFACTURER OF FAN:	30. MANUFACTURER OF MOTOR:
31. MODEL NUMBER OF FAN:	32. TYPE OF MOTOR:
33. TYPE OF FAN BLADE:	34. MOTOR HORSEPOWER:
35. IDENTIFICATION OF FAN ON THE FLOW DIAGRAM:	36. LOCATION OF FAN:
37. MANUFACTURER OF FAN:	38. MANUFACTURER OF MOTOR:
39. MODEL NUMBER OF FAN:	40. TYPE OF MOTOR:
41. TYPE OF FAN BLADE:	42. MOTOR HORSEPOWER
43. IDENTIFICATION OF FAN ON THE FLOW DIAGRAM:	44. LOCATION OF FAN:

38

STATE OF ILLINOIS
ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF AIR POLLUTION CONTROL
2200 CHURCHILL ROAD
SPRINGFIELD, ILLINOIS 62706

RICHARD B. OGILVIE, GOVERNOR
WILLIAM L. BLASER, DIRECTOR

004

ADDENDUM F
DATA AND INFORMATION
FOR EXISTING EMISSION SOURCE

TANK (Fuel oil)

FOR OFFICIAL USE ONLY
I.D. NO.
PERMIT NO. S
DATE

1. NAME OF OWNER: SWIFT CHEMICAL CO.
2. NAME OF CORPORATE DIVISION OR PLANT (IF DIFFERENT FROM OWNER)
3. STREET ADDRESS OF EMISSION SOURCE: 2501 N. Kingshighway
4. CITY: Fairmont City
5. NAME OF TANK MANUFACTURER: Unknown
6. DESIGNATION OF TANK: Fuel Oil Storage
7. SERIAL NUMBER: None shown on tank
8. CAPACITY: 10,000 ☐ BBLS ☒ GALS
9. TANK USE: Storage of No. 2 Fuel Oil
10. TANK SHAPE: ☒ HORIZONTAL ☐ CYLINDRICAL ☐ SPHERICAL ☐ OTHER (SPECIFY)
11. TANK DIAMETER: 8.5 FT
12. TANK HEIGHT: FT
13. TANK LENGTH: 27 F
14. STATUS: Existing ☐ NEW ☐ ALTERATION
15. TANK TYPE: ☐ FIXED ROOF ☐ FLOATING ROO ☐ PRESSURE ☐ OTHER (SPECIFY)
16. SEAL: None ☐ SINGLE ☐ DOUBLE ☐ OTHER (SPECIFY)
17. AVERAGE DISTANCE FROM TOP OF TANK SHELL TO LIQUID: 6" at maximum fill F
18. SHELL TYPE: ☐ RIVETED ☒ WELDED ☐ OTHER (SPECIFY)
19. PAINT COLOR: Gray

VENT VALVE DATA

	TYPE OF VENT	NUMBER OF VENTS	PRESSURE SETTING	DISCHARGE VENTED TO (ATMOSPHERE, FLARE, ETC)
20.	Combination	a.	b. PSIG	c.
21.	PRESSURE	a.	b. PSIG	c.
22.	VACUUM	a.	b. PSIG	c.
23.	OPEN To Atmos.	a.	b. PSIG	c. To atmosphere

MATERIALS TO BE STORED

	MATERIAL	DENSITY	VAPOR PRESSURE AT 70° F
24.	a.	b. LBS/GAL	c. PSIA
25.	a. No. 2 Fuel Oil	b. 7.3 LBS/GAL	c. RVP > 0.10* PSIA
26.	a.	b. LBS/GAL	c. PSIA
27.	a.	b. LBS/GAL	c. PSIA

28. STORAGE TEMPERATURE: MINIMUM 30 °F MAXIMUM 75 °F
29. TANK TURN OVER PER YEAR: Approx. 8
30. MAXIMUM FILLING RATE: 100 gpm ☐ BBLS/DAY ☐ GALS/DAY
31. AVERAGE THROUGH PUT: 300 ☐ BBLS/DAY ☒ GALS/DAY
32. PRESSURE EQUALIZERS USED: ☐ YES ☒ NO
33. VAPOR LOSS CONTROL DEVICE: ☐ YES ☒ NO

IF VAPOR LOSS CONTROL DEVICE IS USED, CONSTRUCTION PERMIT APPLICATION FOR AIR POLLUTION CONTROL EQUIPMENT (FORM APC-61) SHALL HAVE BEEN COMPLETED AND SUBMITTED AS PART OF THIS APPLICATION.

Swift Agri. Chem.

* Basis information from American Oil Company - Standard oil Div.

Reid Vapor Pressure less than 0.10 PSIA at 100° F

39

APC 76

STATE OF ILLINOIS
ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF AIR POLLUTION CONTROL
2200 CHURCHILL ROAD
SPRINGFIELD, ILLINOIS 62706

RICHARD B. OGILVIE, GOVERNOR
WILLIAM L. BLASER, DIRECTOR

ADDENDUM F
DATA AND INFORMATION
FOR EXISTING EMISSION SOURCE

TANK (Small Anhydrous NH_3)

FOR OFFICIAL USE ONLY
I.D. NO.
PERMIT NO.
DATE

1. NAME OF OWNER: SWIFT CHEMICAL COMPANY
2. NAME OF CORPORATE DIVISION OR PLANT (IF DIFFERENT FROM OWN
3. STREET ADDRESS OF EMISSION SOURCE: 2501 North Kingshighway
4. CITY: Fairmont City
5. NAME OF TANK MANUFACTURER: Not known - name plate missing
6. DESIGNATION OF TANK: Anhydrous small Ammonia Storage
7. SERIAL NUMBER: Ditto
8. CAPACITY: 44 cu yds ☐ B ☐ G
9. TANK USE: Liquid Anhydrous Ammonia
10. TANK SHAPE: ☒ HORIZONTAL ☐ CYLINDRICAL ☐ SPHERICAL ☐ OTHER (SPECIFY)
11. TANK DIAMETER: 6 FT.
12. TANK HEIGHT: FT
13. TANK LENGTH: 50
14. STATUS: Existing ☐ NEW ☐ ALTERATION
15. TANK TYPE: ☒ PRESSURE ☐ FIXED ROOF ☐ FLOATING ☐ OTHER (SPECIFY)
16. SEAL: ☐ SINGLE ☐ DOUBLE ☐ OTHER (SPECIFY)
17. AVERAGE DISTANCE FROM TOP OF TANK SHELL TO LIQUID: At maximum fill (85% of capacity) 1'-3"
18. SHELL TYPE: ☐ RIVETED ☒ WELDED ☐ OTHER (SPECIFY)
19. PAINT COLOR: Gray

VENT VALVE DATA 2 vents with two safety relief valves

TYPE OF VENT	NUMBER OF VENTS	PRESSURE SETTING	DISCHARGE VENTED TO (ATMOSPHERE, FLARE, ETC)
20. Combination	a.	b. PSIG	c.
21. PRESSURE (Safety)	a. 2	b. 250 PSIG	c. Discharge to atmosphere only in unlikely event tank pressure exceeds 250 psig
22. VACUUM	a.	b. PSIG	c.
23. OPEN	a.	b. PSIG	c.

MATERIALS TO BE STORED

MATERIAL	DENSITY	VAPOR PRESSURE AT 70° F
24. a. Liquid Anhydrous Ammonia	b. 5.08 LBS/GAL	c. 128.8 P
25. a.	b. LBS/GAL	c. P
26. a.	b. LBS/GAL	c. P
27. a.	b. LBS/GAL	c. P

28. STORAGE TEMPERATURE: MINIMUM 20 °F MAXIMUM 85 °F
29. TANK TURN OVER PER YEAR: 28
30. MAXIMUM FILLING RATE: 50 gpm ☐ BBLS/DAY ☐ GALS/DAY
31. AVERAGE THROUGHPUT: 1300 ☐ BBLS/DA ☒ GALS/DA
32. PRESSURE EQUALIZERS USED: ☒ YES ☐ NO
33. VAPOR LOSS CONTROL DEVICE: ☐ YES ☒ NO
IF VAPOR LOSS CONTROL DEVICE IS USED, ATTACH APPLICATION FOR AIR POLLUTION CONTROL EQUIPMENT (FORM APC-61) COMPLETED AND SUBMITTED AS PART OF THIS APPLIC

40

APC 76

STATE OF ILLINOIS
ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF AIR POLLUTION CONTROL
2200 CHURCHILL ROAD
SPRINGFIELD, ILLINOIS 62706

RICHARD B. OGILVIE, GOVERNOR
WILLIAM L. BLASER, DIRECTOR

ADDENDUM F
DATA AND INFORMATION FOR EXISTING EMISSION SOURCE
TANK (Large Anhydrous NH_3)

FOR OFFICIAL USE ONLY
I.D. NO.
PERMIT NO. $
DATE

1. NAME OF OWNER: SWIFT CHEMICAL COMPANY	2. NAME OF CORPORATE DIVISION OR PLANT (IF DIFFERENT FROM OWNER)
3. STREET ADDRESS OF EMISSION SOURCE: 2501 North Kingshighway	4. CITY: Fairmont City
5. NAME OF TANK MANUFACTURER: Not known name plate missing	6. DESIGNATION OF TANK: Large Anhydrous Ammonia Storage
7. SERIAL NUMBER: Ditto	8. CAPACITY: 32000 ☐ BBLS ☒ GALS

9. TANK USE: Liquid Anhydrous Ammonia

10. TANK SHAPE: ☒ HORIZONTAL ☐ CYLINDRICAL ☐ SPHERICAL ☐ OTHER (SPECIFY)

11. TANK DIAMETER: 9'-3" FT.	12. TANK HEIGHT: FT.	13. TANK LENGTH: 62'-9"

14. STATUS: Existing ☐ NEW ☐ ALTERATION	15. TANK TYPE: ☐ FIXED ROOF ☐ FLOATING ☒ PRESSURE ☐ OTHER (SPECIFY)
16. SEAL: ☐ SINGLE ☐ DOUBLE ☐ OTHER (SPECIFY)	17. AVERAGE DISTANCE FROM TOP OF TANK SHELL TO LIQUID: At maximum fill (85% of capacity) 2
18. SHELL TYPE: ☐ RIVETED ☒ WELDED ☐ OTHER (SPECIFY)	19. PAINT COLOR: Gray

VENT VALVE DATA 2 vents with two safety relief valves

TYPE OF VENT	NUMBER OF VENTS	PRESSURE SETTING	DISCHARGE VENTED TO (ATMOSPHERE, FLARE, ETC)
20. Combination	a.	b. PSIG	c.
21. PRESSURE Safety	a.	b. 250 PSIG	c. Discharge to atmosphere only in unlikely event tank pressure exceeds 250 psig
22. VACUUM	a.	b. PSIG	c.
23. OPEN	a.	b. PSIG	c.

MATERIALS TO BE STORED

MATERIAL	DENSITY	VAPOR PRESSURE AT 70° F
24. a. Liquid Anhydrous Ammonia	b. 5.08 LBS/GAL	c. 128.8 PSIA
25. a.	b. LBS/GAL	c. PSIA
26. a.	b. LBS/GAL	c. PSIA
27. a.	b. LBS/GAL	c. PSIA

28. STORAGE TEMPERATURE: MINIMUM 20 °F MAXIMUM 85 °F	29. TANK TURN OVER PER YEAR: 32
30. MAXIMUM FILLING RATE: 50 gpm ☐ BBLS/DAY ☐ GALS/DAY	31. AVERAGE THROUGH PUT: 3700 ☐ BBLS/DAY ☒ GALS/DAY
32. PRESSURE EQUALIZERS USED: ☒ YES ☐ NO	

33. VAPOR LOSS CONTROL DEVICE: ☐ YES ☒ NO — IF VAPOR LOSS CONTROL DEVICE IS USED, CONSTRUCTION PERMIT APPLICATION FOR AIR POLLUTION CONTROL EQUIPMENT (FORM APC-61) MUST BE COMPLETED AND SUBMITTED AS PART OF THIS APPLICATION.

Swift Chem.

APC 76

STATE OF ILLINOIS
ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF AIR POLLUTION CONTROL
2200 CHURCHILL ROAD
SPRINGFIELD, ILLINOIS 62706

RICHARD B. OGILVIE, GOVERNOR
WILLIAM L. BLASER, DIRECTOR

005

ADDENDUM F
DATA AND INFORMATION
FOR EXISTING EMISSION SOURCE

TANK
(South Phosphoric Acid Tank)

FOR OFFICIAL USE ONLY
I.D. NO.
PERMIT NO.
DATE

1. NAME OF OWNER: SWIFT CHEMICAL CO.
2. NAME OF CORPORATE DIVISION OR PLANT (IF DIFFERENT FROM OWNER)
3. STREET ADDRESS OF EMISSION SOURCE: 2501 N. Kingshighway
4. CITY: Fairmont City
5. NAME OF TANK MANUFACTURER: Built by prior owners-Manuf. not known
6. DESIGNATION OF TANK: Phosphoric Acid Tank (South)
7. SERIAL NUMBER: Has none
8. CAPACITY: 32000 ☐ BBLS ☒ GALS
9. TANK USE: Storage of Wet Process Phosphoric Acid
10. TANK SHAPE: ☐ HORIZONTAL ☐ CYLINDRICAL ☐ SPHERICAL ☒ OTHER (SPECIFY) Open rectangular lead-lin wood vat
11. TANK DIAMETER: Width 12 FT.
12. TANK HEIGHT: 10 FT.
13. TANK LENGTH: 36
14. STATUS: Existing ☐ NEW ☐ ALTERATION
15. TANK TYPE: ☐ PRESSURE ☐ FIXED ROOF ☐ FLOATING ☒ OTHER (SPECIFY) Open top
16. SEAL: None ☐ SINGLE ☐ DOUBLE ☐ OTHER (SPECIFY)
17. AVERAGE DISTANCE FROM TOP OF TANK SHELL TO LIQUID: Not applicable
18. SHELL TYPE: ☐ RIVETED ☐ WELDED ☐ OTHER (SPECIFY)
19. PAINT COLOR: Not painted

VENT VALVE DATA None required - open vat

TYPE OF VENT	NUMBER OF VENTS	PRESSURE SETTING	DISCHARGE VENTED TO (ATMOSPHERE, FLARE, ETC)
20. Combination	a.	b. PSIG	c.
21. PRESSURE	a.	b. PSIG	c.
22. VACUUM	a.	b. PSIG	c.
23. OPEN	a.	b. PSIG	c.

MATERIALS TO BE STORED

MATERIAL	DENSITY	VAPOR PRESSURE AT 70° F
24. a. Wet Process Phosphoric Acid	b. 14.1 LBS/GAL	c. 1 mm Hg*
25. a.	b. LBS/GAL	c.
26. a.	b. LBS/GAL	c.
27. a.	b. LBS/GAL	c.

28. STORAGE TEMPERATURE: MINIMUM 30 °F MAXIMUM 70 °F
29. TANK TURN OVER PER YEAR: 7.5
30. MAXIMUM FILLING RATE: 50 gpm ☐ BBLS/DAY ☐ GALS/DAY
31. AVERAGE THROUGH PUT: 3400 ☐ BBLS/DAY ☒ GALS/DAY
32. PRESSURE EQUALIZERS USED: ☐ YES ☒ NO
33. VAPOR LOSS CONTROL DEVICE: ☐ YES ☒ NO
IF VAPOR LOSS CONTROL DEVICE IS USED, A PERMIT APPLICATION FOR AIR POLLUTION CONTROL EQUIPMENT (FORM APC-61) SHALL BE COMPLETED AND SUBMITTED AS PART OF THIS APPLICATION.

*See Fig. 3-1 page 3-61 Chemical Engrs. Hdbk. 4th Ed.

APC 76

STATE OF ILLINOIS
ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF AIR POLLUTION CONTROL
2200 CHURCHILL ROAD
SPRINGFIELD, ILLINOIS 62706

RICHARD B. OGILVIE, GOVERNOR
WILLIAM L. BLASER, DIRECTOR

005

ADDENDUM F
DATA AND INFORMATION
FOR EXISTING EMISSION SOURCE

TANK
(North Phosphoric Acid Tank)

FOR OFFICIAL USE ONLY
I.D. NO.
PERMIT NO.
$
DATE

1. NAME OF OWNER: SWIFT CHEMICAL COMPANY
2. NAME OF CORPORATE DIVISION OR PLANT (IF DIFFERENT FROM OWN
3. STREET ADDRESS OF EMISSION SOURCE: 2501 N. Kingshighway
4. CITY: Fairmont City
5. NAME OF TANK MANUFACTURER: Built by prior owners-Manuf. not known
6. DESIGNATION OF TANK: Phosphoric Acid Storage (North)
7. SERIAL NUMBER: Has None
8. CAPACITY: 32000 ☐ BI ☒ GA
9. TANK USE: Storage of Wet Process Phosphoric Acid
10. TANK SHAPE: ☐ HORIZONTAL ☐ CYLINDRICAL ☐ SPHERICAL ☒ OTHER (SPECIFY) Open rectangular lead-l wood vat
11. TANK DIAMETER: Width 12 FT
12. TANK HEIGHT: 10 FT
13. TANK LENGTH: 36
14. STATUS: Existing ☐ NEW ☐ ALTERATION
15. TANK TYPE: ☐ FIXED ROOF ☐ FLOATING ☐ PRESSURE ☒ OTHER (SPECIFY) Open top
16. SEAL: None ☐ SINGLE ☐ DOUBLE ☐ OTHER (SPECIFY)
17. AVERAGE DISTANCE FROM TOP OF TANK SHELL TO LIQUID: Not applicable
18. SHELL TYPE: ☐ RIVETED ☐ WELDED ☐ OTHER (SPECIFY)
19. PAINT COLOR: Not painted

VENT VALVE DATA None required - open vat

TYPE OF VENT	NUMBER OF VENTS	PRESSURE SETTING	DISCHARGE VENTED TO (ATMOSPHERE, FLARE, ETC)
20. Combination	a.	b. PSIG	c.
21. PRESSURE	a.	b. PSIG	c.
22. VACUUM	a.	b. PSIG	c.
23. OPEN	a.	b. PSIG	c.

MATERIALS TO BE STORED

MATERIAL	DENSITY	VAPOR PRESSURE AT 70° F
24. a. Wet process phosphoric Acid	b. 14.1 LBS/GAL	c. 1mm Hg* P
25. a.	b. LBS/GAL	c. P
26. a.	b. LBS/GAL	c. P
27. a.	b. LBS/GAL	c. P

28. STORAGE TEMPERATURE: MINIMUM 30 °F MAXIMUM 70 °F
29. TANK TURN OVER PER YEAR: 7.5
30. MAXIMUM FILLING RATE: 50 gpm ☐ BBLS/DAY ☐ GALS/DAY
31. AVERAGE THROUGH PUT: 3400 ☐ BBLS/D ☒ GALS/D
32. PRESSURE EQUALIZERS USED: ☐ YES ☒ NO
33. VAPOR LOSS CONTROL DEVICE: ☐ YES ☒ NO
IF VAPOR LOSS CONTROL DEVICE IS USED, APPLICATION FOR AIR POLLUTION CONTROL EQUIPMENT (FORM APC-61) SHALL BE COMPLETED AND SUBMITTED AS PART OF THIS APPLIC

*See Fig. 3-1 page 3-61 Chemical Engrs. Hdbk. 4th Ed.

APC 76

STATE OF ILLINOIS
ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF AIR POLLUTION CONTROL
2200 CHURCHILL ROAD
SPRINGFIELD, ILLINOIS 62706

RICHARD B. OGILVIE, GOVERNOR
WILLIAM L. BLASER, DIRECTOR

C06

ADDENDUM F
DATA AND INFORMATION
FOR EXISTING EMISSION SOURCE

TANK (Sulfuric Acid Tank)

FOR OFFICIAL USE ONLY
I.D. NO.
PERMIT NO.
DATE

1. NAME OF OWNER: SWIFT CHEMICAL COMPANY
2. NAME OF CORPORATE DIVISION OR PLANT (IF DIFFERENT FROM OWNER):
3. STREET ADDRESS OF EMISSION SOURCE: 2501 N. Kingshighway
4. CITY: Fairmont City
5. NAME OF TANK MANUFACTURER: Built by prior owners - Manuf.not known
6. DESIGNATION OF TANK: Sulfuric Acid (60° Be) Storage
7. SERIAL NUMBER: Has none
8. CAPACITY: 10,000 ☐ BBL ☒ GAL
9. TANK USE: Storage of Sulfuric Acid (60° Be)
10. TANK SHAPE: ☐ HORIZONTAL ☐ CYLINDRICAL ☐ SPHERICAL ☐ OTHER (SPECIFY) Open rectangular lead-lined wood vat
11. TANK DIMENSIONS: Width 8 FT
12. TANK HEIGHT: 7 FT
13. TANK LENGTH: 24
14. STATUS: Existing ☐ NEW ☐ ALTERATION
15. TANK TYPE: ☐ PRESSURE ☐ FIXED ROOF ☐ FLOATING R ☒ OTHER (SPECIFY) Open to
16. SEAL: None ☐ SINGLE ☐ DOUBLE ☐ OTHER (SPECIFY)
17. AVERAGE DISTANCE FROM TOP OF TANK SHELL TO LIQUID: Not applicable
18. SHELL TYPE: ☐ RIVETED ☐ WELDED ☒ OTHER (SPECIFY) Lead-Lined Wood
19. PAINT COLOR: Not painted

VENT VALVE DATA none required - open vat

	TYPE OF VENT	NUMBER OF VENTS	PRESSURE SETTING	DISCHARGE VENTED TO (ATMOSPHERE, FLARE, ETC)
20.	Combination	a.	b. PSIG	c.
21.	PRESSURE	a.	b. PSIG	c.
22.	VACUUM	a.	b. PSIG	c.
23.	OPEN	a.	b. PSIG	c.

MATERIALS TO BE STORED

	MATERIAL	DENSITY	VAPOR PRESSURE AT 70° F
24.	a. Sulfuric Acid (60° Be)	b. 11.3 LBS/GAL	c. Approx.0.25mm hg*
25.	a.	b. LBS/GAL	c. PS
26.	a.	b. LBS/GAL	c. PS
27.	a.	b. LBS/GAL	c. PS

28. STORAGE TEMPERATURE: MINIMUM 30 °F MAXIMUM 70 °F
29. TANK TURN OVER PER YEAR: 26
30. MAXIMUM FILLING RATE: 50 gpm ☐ BBLS/DAY ☐ GALS/DAY
31. AVERAGE THROUGH PUT: 1000 ☐ BBLS/DA ☒ GALS/DA
32. PRESSURE EQUALIZERS USED: ☐ YES ☐ NO
33. VAPOR LOSS CONTROL DEVICE: ☐ YES ☒ NO IF VAPOR LOSS CONTROL DEVICE IS [illegible] PERMIT APPLICATION FOR AIR POLLUTION CONTROL EQUIPMENT (FORM APC-61) [illegible] SUBMITTED AS PART OF THIS APPLIC

*See table 3-13 Chem. Engns. Hdbk -4th Ed.

APC 75

STATE OF ILLINOIS
ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF AIR POLLUTION CONTROL
2200 CHURCHILL ROAD
SPRINGFIELD, ILLINOIS 62706

RICHARD B. OGILVIE, GOVER
WILLIAM L. BLASER, DIREC

DATA AND INFORMATION
FOR EXISTING COMBUSTION EQUIPMENT
AND
INDIRECT HEATING

Dryer Burner (E-2)

FOR OFFICIAL USE ONLY
I.D. NO.
PERMIT NO. F
DATE

1a. NAME OF OWNER: SWIFT CHEMICAL CO.

1b. NAME OF OPERATOR:

2a. STREET ADDRESS OF OWNER: 111 W. Jackson Boulevard

2b. STREET ADDRESS OF OPERATOR: 2501 N. Kingshighway

3a. CITY OF OWNER: Chicago

3b. CITY OF OPERATOR: Fairmont City

4a. STATE OF OWNER: Illinois

4b. ZIP CODE: 60604

5a. STATE OF OPERATOR: Illinois

5b. ZIP CODE: 62201

6. NAME OF CORPORATE DIVISION OR PLANT (IF DIFFERENT FROM OWNER):

7. LOCATED WITHIN CITY LIMITS: [X] YES [ ] NO

8. STREET ADDRESS OF EMISSION SOURCE: 2501 N. Kingshighway

9a. CITY: Fairmont City

9b. LOCATED WITHIN CITY LIMITS: [ ] YES [ ] NO

10. COUNTY: St. Clair

11. ZIP CODE: 62201

12. WAS THE EQUIPMENT DESCRIBED IN THIS INFORMATIONAL FORM INSTALLED AT THE PLANT OR PREMISES OF THE APPLICANT ON OR BEFORE APRIL 14, 1972?

[X] YES [ ] NO

IF "NO," STATE WHETHER THE APPLICANT HAD, ON OR BEFORE APRIL 14, 1972, ENTERED INTO A BINDING AGREEMENT OR CONTRACTUAL OBLIGATION TO UNDERTAKE AND COMPLETE, WITHIN A REASONABLE TIME, A CONTINUOUS PROGRAM OF CONSTRUCTION OR MODIFICATION OF THE EQUIPMENT DESCRIBED IN THIS INFORMATIONAL FORM:

[ ] YES [ ] NO

13. THE APPLICANT SHALL PROVIDE THE RESULTS OF TESTS CONDUCTED IN ACCORDANCE WITH APPLICABLE REGULATIONS OF CHAPTER 2, AIR POLLUTION, WHICH SHOW WHETHER OR NOT THE EMISSIONS OF CONTAMINANTS FROM THIS EMISSION SOURCE, EITHER ALONE OR IN COMBINATION WITH CONTAMINANTS FROM OTHER SOURCES LOCATED AT THE SAME PLANT OR PREMISES OF THE APPLICANT, COMPLY WITH APPLICABLE SUBSTANTIVE REGULATIONS OF CHAPTER 2, AIR POLLUTION.

IN LIEU OF ONE OR MORE OF SUCH TESTS, THE APPLICANT MAY SUBMIT OTHER STANDARD TESTING INFORMATION OR THE DETAILS AND RESULTS OF ENGINEERING STUDIES SUFFICIENT TO ACCURATELY ESTIMATE THE RATES OF EMISSIONS OF CONTAMINANTS FROM THIS EMISSION SOURCE AND FURTHER TO SHOW WHETHER OR NOT THE EMISSIONS OF SUCH CONTAMINANTS, EITHER ALONE OR IN COMBINATION WITH CONTAMINANTS FROM OTHER SOURCES LOCATED AT THE SAME PLANT OR PREMISES OF THE APPLICANT, COMPLY WITH APPLICABLE SUBSTANTIVE REGULATIONS OF CHAPTER 2, AIR POLLUTION.

Combustion gases from this burner (E-2) vent directly into dryer(R-2) and represent a portion of gases vented at emission source SR-2. Emissions are covered by test reports summarized in exhibit 3.

THESE DATA AND INFORMATION CONSIST OF APPLICATION FORMS AND OTHER EXHIBITS LISTED BY TITLE AND NUMBER OF PAGES BELOW.

APC-86

0 3 6 6 6 A 0 1 9 6 5

I.D. NO. | | | | | | | | | FOR OFFICIAL USE ONLY PERMIT APPLICATION NO. F | | | | | | |

GENERAL INFORMATION

NOTE: APPLICANT MUST SUBMIT TWO COPIES (THREE IF LOCATED IN COOK COUNTY) OF EACH OF THE FOLLOWING:
1. CONSTRUCTION PERMIT APPLICATION FORM (SEPARATE APPLICATION FORMS FOR EACH ITEM OF CONTROL EQUIPMENT NOT COVERED BY AN ATTACHED ADDENDUM).
2. DIMENSIONED DRAWINGS, PLAN, ELEVATION (SECTIONED WHERE NECESSARY AND WHERE APPLICABLE) AND PLOT PLAN AND MAP SHOWING DISTANCES TO NEAREST BOUNDARY OF THE PROPERTY ON WHICH THE CONTROL EQUIPMENT IS LOCATED, AND THE DISTANCES TO NEAREST RESIDENCES, LODGINGS, NURSING HOMES, HOSPITALS, SCHOOLS, AND COMMERCIAL AND MANUFACTURING ESTABLISHMENTS.
3. FLOW DIAGRAM AS SPECIFIED IN THE INSTRUCTION SHEET.

14. BOILER MANUFACTURER:
15. MODEL NUMBER:
16. SERIAL NUMBER
17. OPERATION TIME OF BOILER: _____ HRS/DAY _____ DAYS/WK _____ WKS/YR
18. PERCENT OF ANNUAL THROUGHPUT: DEC-FEB ___ % MAR-MAY ___ % JUNE-AUG ___ % SEPT-NOV ___ %
19. RATED HEAT INPUT: THOUSAND BTU/HR
20. TOTAL COST OF HEATING EQUIPMENT (NOT INCLUDING INSTALLATION): $
21. OPERATING PRESSURE OF BOILER: PSIG
22. PERCENT CAPACITY USED FOR SPACE HEATING:

GAS FIRED UNITS

23. GAS BURNER MANUFACTURER & MODEL NUMBER:
24. BURNER VOLUME: FT^3
25. RETENTION TIME: SI
26. MAXIMUM FIRING RATE: SCFH
27. AVERAGE FIRING RATE: SCFH
28. AVERAGE HEAT CONTENT: BTU/FT
29. AVERAGE SULFUR CONTENT: % BY WT
30. EST. ANNUAL CONSUMPTION: SCF
31. EXCESS AIR: % BY VO

OIL FIRED UNITS

32. OIL BURNER MANUFACTURER & MODEL NUMBER: Iron Fireman A02 - 9.8
33. BURNER VOLUME: 432 FT
34. RETENTION TIME: SEC
35. MAXIMUM FIRING RATE: 9,000 THOUSAND BTU/HR
36. AVERAGE FIRING RATE: 4,008 THOUSAND BTU/H
37. TYPE OF OIL: 2 Fuel Oil
38. EST. ANNUAL CONSUMPTION: 485,888 LB
39. AVERAGE HEAT CONTENT OF OIL: 19,500 BTU/L
40. EXCESS AIR: 40 - 50 % BY VOL
41. AVERAGE SULFUR CONTENT: 0.28 % BY WT
42. AVERAGE ASH CONTENT: NIL % BY W
43. OIL BURNER TYPE: ☒ ATOMIZING ☐ STEAM OR AIR ATOMIZING ☐ OTHER SPECIFY _____
44. DIRECTION OF FIRING: ☒ HORIZONTAL ☐ TANGENTIAL
45. OIL BURNER CONTROL: ☐ MANUAL ☐ AUTOMATIC ON-OFF ☐ AUTOMATIC HIGH-LOW ☐ AUTOMATIC FULL MODULATION

COAL FIRED UNITS

46. TYPE OF COAL: ☐ BITUMINOUS ☐ ANTHRACITE ☐ OTHER SPECIFY _____
47. AVERAGE SULFUR CONTENT: % BY WT
48. AVERAGE ASH CONTENT: % BY WT
49. MAXIMUM FIRING RATE: THOUSAND BTU/HR
50. AVERAGE FIRING RATE: THOUSAND BTU/H
51. VOLATILE CONTENTS: % BY WT
52. EXCESS AIR: % BY W
53. MAXIMUM SULFUR CONTENT: % BY WT
54. MOISTURE CONTENT: % BY W
55. AVERAGE HEAT VALUE: BTU/LB
56. IDENTIFY SOURCE OF COAL BY MINE AND SEAM:
57. ANNUAL CONSUMPTION: TONS/Y
58. TYPE OF FIRING:
a. ☐ PULVERIZED DRY BOTTOM
b. ☐ PULVERIZED WET BOTTOM
c. ☐ CYCLONE
d. ☐ SPREADER NO REINJECTION
e. ☐ SPREADER _____ % REINJECTION
f. ☐ OTHER SPECIFY _____
59. DIRECTION OF FIRING: ☐ HORIZONTAL ☐ VERTICAL ☐ TANGENTIAL ☐ CORNER ☐ OTHER SPECIFY _____

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46

I.D. NO. | | | | | | | | | FOR OFFICIAL USE ONLY | PERMIT APPLICATION NO. F | | | | | | |

EXHAUST GAS ANALYSIS
(PRIOR TO PASSAGE THROUGH ANY CONTROL EQUIPMENT)

NOTE: IF THE EMISSION SOURCE WHICH IS THE SUBJECT OF THIS CONSTRUCTION PERMIT APPLICATION IS SERVED BY MORE THAN ONE EXHAUST STACK OR VENT, THE APPLICANT SHALL COMPLETE SEPARATE SHEETS FOR EACH SUCH STACK OR VENT.

CONTAMINANT	CONCENTRATION	EMISSION RATE	METHOD OF MEASURE AND ANALYSIS	METHOD OF MONITORING
60. CARBON MONOXIDE	a. PPM	b. LB/HR	c.	d.
61. CARBON DIOXIDE	a. 11% PPM	b. 156 LB/HR	c. Table 9 - 16 Perry's 4th Ed.	d.
62. CHLORINE	a. PPM	b. LB/HR	c.	d.
63. HYDROCARBONS AS CH_4	a. PPM	b. LB/HR	c.	d.
64. HYDROGEN CHLORIDE	a. PPM	b. LB/HR	c.	d.
65. HYDROGEN SULFIDE	a. PPM	b. LB/HR	c.	d.
66. NITROGEN	a. PPM	b. LB/HR	c.	d.
67. NITROGEN OXIDES AS NO_2	a. 24 PPM	b. 0.49 LB/HR	c. See chap. 9 of Air Pollution Manual HEW - 1967	d.
68. SULFUR DIOXIDE	a. 11 PPM	b. 0.287 LB/HR	c.	d.
69. OTHER (SPECIFY)	a. PPM	b. LB/HR	c.	d.
70. PARTICULATE MATTER	a. .045 GRAIN/SCF	b. Est. Avg. 0.075 LB/HR	c.	d.

71. PARTICULATE MATTER COMPOSITION EXPRESSED AS PERCENT BY WEIGHT OF EACH COMPONENT (COMMON NAME SHALL BE GIVEN IF CHEMICAL NAME IS UNKNOWN):

Carbon particles assumed to be major portion of particulate

NOTE: THIS SECTION TO BE COMPLETED ONLY IF EMISSIONS ARE EXHAUSTED DIRECTLY TO THE ATMOSPHERE WITHOUT ANY CONTROL EQUIPMENT:

72. HOW EMISSIONS ARE EXHAUSTED: ☐ STACK ☐ VENT

73. GAS EXIT VELOCITY: FPS

74. GAS EXIT TEMPERATURE: °F

75. DRAFT CONTROLS: ☐ MANUAL ☐ AUTOMATIC ☐ BAROMETRIC ☐ OTHER (SPECIFY)

76. DISTANCE OF THE STACK OR VENT FROM THE NEAREST PLANT BOUNDARY OF THE APPLICANT: FT.

77. HEIGHT OF STACK OR VENT ABOVE GRADE: FT.

78. HEIGHT OF STACK OR VENT ABOVE ROOF: FT.

79. HEIGHT OF TALLEST BUILDING WITHIN 150 FEET: FT.

80. YOUR DESIGNATION OF STACK OR VENT:

81. AREA OF STACK OR VENT AT EXIT: FT^2

82. IF OTHER EMISSION SOURCES OR AIR POLLUTION CONTROL EQUIPMENT ARE EXHAUSTED THROUGH THE STACK OR VENT SERVING THE EQUIPMENT COVERED BY THIS APPLICATION, THE APPLICANT SHALL DEFINE THE EMISSIONS FROM SUCH OTHER EQUIPMENT AND ATTACH SUCH INFORMATION TO THIS APPLICATION AS EXHIBIT G.

TOTAL NUMBER OF PAGES IN EXHIBIT G:

83. THE APPLICANT SHALL SUBMIT AN ESTIMATE OF THE MAXIMUM ONE-HOUR AMOUNTS OF PARTICULATE MATTER, SULFUR DIOXIDE, CARBON MONOXIDE, OXIDES OF NITROGEN, AND HYDROCARBONS (AS METHANE) EMITTED FROM ALL SOURCES LOCATED ON THE PLANT OR PREMISES, INCLUDING THE EMISSIONS ESTIMATED FROM THE EQUIPMENT COVERED BY THIS APPLICATION, AND THE AREA (IN ACRES) OF THE PLANT OR PREMISES OF THE APPLICANT.

MATERIAL	ONE-HOUR MAX. AMOUNTS	MATERIAL	ONE-HOUR MAX. AMOUNTS	MATERIAL	ONE-HOUR MAX. AMOUNTS
PARTICULATE MATTER	35.2 LB	SULFUR DIOXIDE	1.44 LB	NITROGEN OXIDES AS NO_2	2.45 LB
HYDROCARBONS AS CH_4	LB	CARBON MONOXIDE	LB	NH - 134 lbs./hr.max.	

3

APC-86

STATE OF ILLINOIS
ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF AIR POLLUTION CONTROL
2200 CHURCHILL ROAD
SPRINGFIELD, ILLINOIS 62706

RICHARD B. OGILVIE, GOVER
WILLIAM L. BLASER, DIREC

COMPLIANCE PLAN

I.D. NO. [ ][ ][ ][ ][ ][ ][ ]
PERMIT NO. 0 [ ][ ][ ][ ][ ][ ]
DATE

1. NAME OF OWNER: SWIFT CHEMICAL CO.	7. NAME OF CORPORATE DIVISION OR PLANT (IF DIFFERENT FROM OWNER):
2. TELEPHONE NUMBER: 312/431-2533	8. TELEPHONE NUMBER: 618/271-5650 618/874-7811
3. STREET ADDRESS OF OWNER: 111 W. Jackson Blvd.	9. STREET ADDRESS OF EMISSION SOURCE: 2501 N. Kingshighway
4. CITY: Chicago	10. CITY: Fairmont City / 11. LOCATED WITHIN CITY LIMITS ☒ YES ☐ NO
5. STATE: Ill. / 6. ZIP CODE: 60604	12. COUNTY: St. Clair / 13. ZIP CODE: 62201

THE UNDERSIGNED HEREBY FILES THIS COMPLIANCE PLAN RELATING TO THE EQUIPMENT DESCRIBED HEREIN AND CERTIFIES THAT THE STATEMENTS CONTAINED HEREIN ARE TRUE AND CORRECT, AND FURTHER CERTIFIES THAT ALL PREVIOUSLY SUBMITTED INFORMATION REFERENCED IN THIS APPLICATION REMAINS TRUE, CORRECT AND CURRENT. THE UNDERSIGNED APPROVES EACH AND EVERY PROVISION OF THE PROGRAM DESCRIBED IN THIS COMPLIANCE PLAN AND RELATED PROJECT COMPLETION SCHEDULES.

OWNER (IF INDIVIDUAL)

SIGNATURE DATE

YOUR IDENTIFICATION NUMBER (OPTIONAL) [ ][ ][ ][ ][ ][ ][ ][ ][ ]

OWNER (IF CORPORATION OR PARTNERSHIP)

SWIFT CHEMICAL CO. 1/15/73
EXACT CORPORATE OR PARTNERSHIP NAME DATE

E R Trabbic
SIGNATURE OF OFFICER TITLE OF OFFICER

A CORPORATE OWNER MUST HAVE ON FILE WITH THE AGENCY A CERTIFIED COPY OF A RESOLUTION OF ITS BOARD OF DIRECTORS AUTHORIZING THE OFFICER SIGNING THE APPLICATION TO EXECUTE THIS COMPLIANCE PLAN, AND TO CAUSE OR ALLOW THE CONSTRUCTION, MODIFICATION AND OPERATION OF THE EQUIPMENT TO BE COVERED THEREUNDER.

Enclosed with letter of transmittal.

THIS PERMIT APPLICATION CONSISTS OF APPLICATION FORMS AND OTHER EXHIBITS LISTED BY TITLE AND NUMBER OF PAGES BELOW.

0 3 6 6 0 2 0 1 9 6 8

14. The applicant shall submit a process flow diagram depicting all emission sources and all air pollution control equipment covered by this Compliance Plan and related Operating Permit application. The diagram shall include labels for each source and equipment, and shall set forth maximum flow rates for (1) all process equipment, (2) all air pollution control equipment, (3) all emission sources and (4) all stacks and vents.

(If this information has been previously submitted with the Operating Permit application, the applicant need not resubmit the diagram but may reference appropriate drawing number(s)).

Number of sheets: 2 Drawing Number(s): 102 & 104 pages 34 & 35

15. The applicant shall submit a detailed description of the equipment he proposes to install to comply with the Environmental Protection Act and applicable substantive Regulations. This description shall include information as to the technical reasonableness of the proposed air pollution control equipment or control techniques, and engineering reports or studies sufficient to prove that the installation of this equipment will result in the operation being in compliance with the Act and applicable substantive Regulations. This equipment shall be accurately and clearly labeled on the process flow diagram. Detailed information for each item of equipment shall be submitted in one of the following three ways:

(a) If the applicant has entered into a binding agreement or contractural obligation to purchase specific items of equipment, he shall complete applicable Construction Permit application forms, and shall note on page one (1) of such forms "This equipment is purchased, but not installed, as part of our Compliance Plan for the operation, and is indicated on drawing (complete as necessary) as item (complete as necessary)." The applicant shall submit a list of those forms so marked and attach to this Plan as Exhibit N.

Total number of pages in Exhibit N: 1 Fuel oil contract will not be entered into until July 1973

(b) If the applicant has selected but not entered into a binding agreement or contracturual obligation to purchase specific items of equipment, he shall complete applicable Construction Permit application forms and shall note on page (1) of such forms "This equipment is to be purchased and installed as part of our Compliance Plan for this operation and is indicated on drawing (complete as necessary) as item (complete as necessary)." The applicant shall submit a list of those forms so marked and attach to this Plan as Exhibit P.

Total number of pages in Exhibit P: _____

(c) If the applicant has selected the type of air pollution control equipment or control techniques but has not selected specific items of equipment, he shall (A) submit performance specificationswhich detail the performance of the equipment to be procured; (B) provide a test plan which will detail how the equipment, purchased pursuant to a given specification, will be tested to prove that the equipment meets the applicable performance specifications; and (C) attach this information to this Plan as Exhibit Q.

Total number of pages in Exhibit Q: _____

16. The applicant shall submit a Project Completion Schedule (Form APC-98) for each item of air pollution control equipment or control technique. The final compliance date of such Project Completion Schedule shall be no later than the applicable date described in Chapter 2: Air Pollution.

Total number of Forms APC-98 submitted with this application: 1

STATE OF ILLINOIS
ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF AIR POLLUTION CONTROL
2200 CHURCHILL ROAD
SPRINGFIELD, ILLINOIS 62706

RICHARD B. OGILVIE, GOVERNOR

WILLIAM L. BLASER, DIRECTOR

PROJECT COMPLETION SCHEDULE

FOR OFFICIAL USE ONLY

I.D. NO.

PERMIT NO. 0

DATE

1. NAME OF OWNER: SWIFT CHEMICAL CO.
2. NAME OF CORPORATE DIVISION OR PLANT (IF DIFFERENT FROM OWNER):
3. STREET ADDRESS OF EMISSION SOURCE: 2501 N. Kingshighway
4. CITY: Fairmont City
5. NAME OF AUTHORIZED PERSON PREPARING THIS FORM:
6. SIGNATURE:
7. YOUR IDENTIFICATION NUMBER: (OPTIONAL)
8. DATE THIS FORM 98 PREPARED: January 15, 1973
9. OPERATING PERMIT NUMBER: (IF AVAILABLE)
10. CONSTRUCTION PERMIT NUMBER: (IF AVAILABLE)

THIS FORM MUST BE COMPLETED FOR EACH ITEM OF EQUIPMENT TO BE CONSTRUCTED OR MODIFIED IN ACCORDANCE WITH A COMPLIANCE PLAN.

16. DESCRIBE THE ITEM OF EQUIPMENT TO BE CONSTRUCTED OR MODIFIED:

The steam boiler E-1 burns No. 2 fuel oil presently. This is purchased from American Oil Company, Standard Oil Div. It now contains an average of 0.4% sulfur. To comply with Rule 204(C)(2)(B) on December 31, 1973, the sulfur content of the No. 2 fuel oil will be reduced to less than 0.28% which will give an emission of only 0.287 lbs. $SO_2/10^6$ BTU

12. IDENTIFY THE LABEL OF THIS ITEM OF EQUIPMENT AS GIVEN ON THE APPROPRIATE PROCESS FLOW DIAGRAM:
E-1 as shown on drawings 102 and 104 pages 34 & 35

13. STATE THE PURCHASE PRICE OF THIS EQUIPMENT: ☒ ESTIMATED ☐ ACTUAL $ 6905*

14. STATE THE TOTAL COST (EQUIPMENT PLUS INSTALLATION): ☐ ESTIMATED ☐ ACTUAL $ None **

15. COMPLETE ALL OF THE FOLLOWING INFORMATION IN COLUMNS A AND B. COMPLETE COLUMN C AS APPLICABLE.

	A. EXPECTED DATE ACTIVITY WILL BE COMPLETED	B. LATEST DATE ACTIVITY WILL BE COMPLETED	C. ACTUAL DATE ACTIVITY WAS COMPLETED
a. STATE DATE THE APPLICANT WILL ENTER INTO A BINDING AGREEMENT TO PURCHASE OR MODIFY THIS ITEM OF EQUIPMENT.		See item 6 above	
b. STATE DATE THE APPLICANT WILL APPLY FOR A CONSTRUCTION PERMIT FOR THIS ITEM OF EQUIPMENT OR MODIFICATION OF EQUIPMENT.			
c. STATE DATE THIS ITEM OF EQUIPMENT WILL BE DELIVERED (IF PRESENT EQUIPMENT IS TO BE MODIFIED, STATE WHEN SUCH MODIFICATION SHALL BEGIN) TO THE APPLICANT'S FACILITY.			
d. STATE DATE CONSTRUCTION OR MODIFICATION OF EQUIPMENT WILL BE COMPLETED.			
e. STATE DATE APPLICANT WILL TEST EQUIPMENT TO DEMONSTRATE COMPLIANCE WITH THE ENVIRONMENTAL PROTECTION ACT AND SUBSTANTIVE REGULATIONS PROMULGATED THEREUNDER.			
f. STATE DATE EQUIPMENT WILL BE FULLY OPERATIONAL.			

NOTE: THE TIME ELAPSED BETWEEN TWO CONSECUTIVE EVENTS LISTED IN ITEM 15 ABOVE SHALL NOT EXCEED 6 MONTHS. IN CASE CONSECUTIVE DATES EXCEED 6 MONTHS YOU MUST INTRODUCE AN INTERIM EVENT OR EVENTS SO THE TIME INTERVAL BETWEEN ANY TWO CONSECUTIVE EVENTS IS 6 MONTHS OR LESS.

* original boiler cost in 1965

** to meet rules no equipment changes will be required. Supplier will provide lower S content fuel

50

APC-98

STATE OF ILLINOIS
ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF AIR POLLUTION CONTROL
2200 CHURCHILL ROAD
SPRINGFIELD, ILLINOIS 62706

RICHARD B. OGILVIE, GOVERNOR

WILLIAM L. BLASER, DIRECTOR

ADDENDUM L
DISPOSITION OF SOLID WASTE MATERIAL
FROM
DRY COLLECTORS

FOR OFFICIAL USE ONLY

I.D. NO. 163050AAB

PERMIT NO. 72100690

DATE

1. NAME OF OWNER: Swift Chemical Co.

2. NAME OF CORPORATE DIVISION OR PLANT (IF DIFFERENT FROM OWNER):

3. STREET ADDRESS OF EMISSION SOURCE: 2501 North Kingshighway

4. CITY: E. St. Louis, Il. 62201 (Fairmont City)

5. Describe the processes which result in the production of solid waste material and attach this description to this addendum.

Total number of pages in Exhibit S: 1

6. Describe the state of the waste material (slurry, cake, fine ash, cinders, powder, sludge, etc.) at the applicant's proposed disposal site and attach this description to this addendum as Exhibit T.

Total number of pages in Exhibit T: 1

7. State the chemical composition, expressed as a weight percentage, of the solid waste and attach to this addendum as Exhibit U: Not applicable as process has no solid waste as such, it is all recycled back into the process

8. State the volume and weight of the solid waste generated by this operation on each of the following time intervals: daily, weekly, monthly, and annually. (If these interval bases are not applicable to your operation, you may select different time bases, but must justify such selection.) Attach your answer to this addendum as Exhibit V:

Total number of pages in Exhibit V: not applicable - see note under Item 7

9. Will the solid waste material be deposited in a sanitary landfill permitted by the Environmental Protection Agency? ☐ Yes ☒ No

If "Yes" state the name and Agency permit number of such site.

_____ NAME

_____ PERMIT NUMBER

10. State if the solid waste material will be deposited in a sanitary landfill for which an Agency permit application is pending. ☐ Yes ☒ No

If "Yes" give the name and legal description of this site: _____

_____

11. Will the solid waste material be reused or recycled at the applicant's plant or premises? ☒ Yes ☐ No

If "Yes" describe the reclaiming process and attach to this addendum as Exhibit W.

Total number of pages in Exhibit W: 1

12. Will the solid waste material be transported to a remote site for reuse or recycling? ☐ Yes ☒ No

If "Yes" describe the location and reclaiming process and attach to this addendum as Exhibit X.

Total number of pages in Exhibit X: _____

13. Will the solid waste material be incinerated? ☐ Yes ☒ No

If "Yes" state the name, location, and owner of the incinerator and attach to this addendum as Exhibit Y.

Total number of pages in Exhibit Y: _____

14. If the solid waste will be disposed in a manner not described in Questions 5 through 9 of this addendum, state the method if disposal to be used, the owner and location of the disposal facility, and attach to this addendum as Exhibit Z.

Total number of pages in Exhibit Z: See exhibit W

0366001971

April 12, 1973

EXHIBIT S

DESCRIPTION OF THE PROCESS WHICH RESULTS
IN THE PRODUCTION OF SOLID RECYCLE(WASTE)MATERIAL

Referring to the Process Flow Diagram (Drawing No. 102) Page 34, a maximum of 18,000 scfm of air is drawn through a rotary tube dryer(R-2) to remove moisture from a showering and cascading mass of fertilizer (M.G.) which was mixed and granulated in the ammoniator-granulator(R-1). The moisture content of the M.G. as it enters the dryer(R-2) will range from 5% to 7%. In drying this is reduced to a desired 1.00 to 2.0% depending on the M.G. formulation. The product dryness is only reduced to that level which will insure good product quality in subsequent storage and use.

Dryer air flow entrains particulate during its passage through the showering M.G. and is carried by the air stream into a dry collector of the conventional cyclone type (CY-1). See Exhibit 6, 7, & 8, Pages 29, 30, & 31, for data on particulate size range. Particulate collected therein is conveyed immediately and continuously back to the ammoniator-granulator (R-1) as a part of the return fines or recycle load.

Mixed fertilizer(M.G.) subsequent to drying is then sized into 3 separate fractions by being subjected to screening on an enclosed double deck screen(SC-1). Material larger than the top deck screen mesh, usually a nominal 6 mesh(3.36 mm opening), is diverted to a crusher(CR-1) and then returned directly again to the top section of the double deck screen(SC-1). Material retained on the lower deck of screen SC-1 is the desired product size, nominally a -6+16 mesh, and this discharges to a rotary tube cooler(R-3). Material which passes the 16 mesh (1.19 mm opening) of the lower deck constitutes additional fines which are returned to the ammoniator-granulator(R-1) as part of the recycle load.

The on-size warm product passes through the rotary tube in a showering and cascading fashion counter-currently to a maximum flow of 12,000 scfm of ambient air which primarily cools and secondarily, further drys the product prior to conveying to storage. The flow of air passing through the cooler (R-3) will entrain airborne particulate which is to a large extent captured in dry collector CY-2, a conventional cyclone. The fines from this cooler cyclone collector (CY-2), like those from the double deck screen (SC-1), and the dryer cyclone (CY-1), are gravity fed through enclosed chutes to a belt conveyor discharging these fines along with fresh dry solids feed into the ammoniator-granulator (R-1). The quantity of recycle fines will vary depending on the particular grade of mixed goods (M.G.) being formulated and the physical characteristics of individual ingredients. The amount of return cannot be stated with exactitude for those reasons. However, the weight of fines recycling will range from 0.5 to 2.0 tons per ton of product produced, but for most grades the recycle rate is about 0.75 to 1.0 ton per ton of M.G. conveyed to storage.

EXHIBIT T

DESCRIPTION OF RECYCLE MATERIAL FROM DRY COLLECTORS

There is no waste of material from the dry collectors. Recovered fines constitute dry solids such as superphosphate, ammonium sulfate, potassium chloride, dolomite, etc. These are returned to the ammoniator-granulator as part of the solids recycle. Particulate material which escapes the dry collectors is almost entirely recovered in a subsequent wet scrubber (Rotoclone SR-2) - see drawing No. 102, Page. These solids are recovered by return of the concentrated scrubber liquid to either the ammoniator-granulator(R-1) or to the dryer (R-2) or a portion to both. All the solids material entering the dry collectors is recycled. The small fraction escaping is thoroughly documented in Exhibit-B(3) "A Summary of Stack Emission Tests on Dry/Cooler Scrubber Emission Source #12, Page 14".

EXHIBIT W

DESCRIPTION OF RECLAIMING PROCESS

(This is a repetition of description given in the latter portion of Exhibit S):

"The fines from this cooler cyclone collector (CY-2), like those from the double deck screen (SC-1) and the dryer cyclone (CY-1), are gravity fed through enclosed chutes to a belt conveyor discharging these fines along with fresh dry solids feed into the ammoniator-granulator (R-1)"

Particulate which is not captured in the cyclones is almost completely captured in the wet scrubber and the scrubbing solution is reclaimed by return to the ammoniator-granulator (R-1) and dryer (R-2).

ID: 163 050 AAB

COMPANY NAME: ESTECH GENERAL ~~SWIFT~~ CHEMICAL CORP.

PERMIT NUMBER: 02 10 0690

SOURCE			CONTROL			STACK
NO.	NAME	PG	NO.	NAME	PG	NO.
001	AMMONIATOR/GRANULATOR	1924	C01	WET CYCLONE	1935	S01
002	DRYER & COOLER	1931	C02	CYCLONE + CYCLONE		
—		—	—	+ ROTOCLONE		
003	BOILER	1943				
004	STORAGE TANK	1959				
005	STORAGE TANK	1959				
006	STORAGE TANK	1964				